

Workbook

on

Math

(Grade 6)



Produced by 57-75
in partnership with the Ateneo Center for Educational Development
and the Department of Education Divisions of
Bayombong (Nueva Vizcaya), Guimaras, Iligan City (Lanao del Norte), Iloilo City (Iloilo),
Pampanga, San Isidro (Nueva Ecija), Pagbilao (Quezon) and Sual (Pangasinan)

Workbook on Math (Grade 6)

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PREFACE

In April 2008 the **57-75** Movement organized a workbooks development write-shop in order to come up with an immediate and effective response to the problem of lacking textbooks and instructional materials in public schools. For two weeks, master teachers from each of the **57-75** pilot sites compiled a series of workbooks on Science, English, and Mathematics designed for their elementary and high school students.

The write-shop aimed to: (1) identify least mastered skills in a subject area; (2) produce lesson guides that will help increase the ability of classroom instructors in developing the mastery level of students particularly in problematic subject areas; and (3) help teachers be creative in developing their own instructional materials based on resources available to them in their respective schools.

Both the faculty and students of the public school system are expected to gain from this project. Teachers will not only be aided by the problem-solving and explanations given in the workbooks but will also be helped in terms of gearing their students towards a unified understanding of the subject matter. This workbook will also serve as an alternative medium of instruction in the absence of textbooks and other necessary teaching materials that the less fortunate may not be able to afford.

The workbooks development write-shop is also **57-75**'s contribution to enhancing the reading proficiencies in its pilot sites.

57-75, a private sector-led movement created to help address the many problems of Philippine education, was inspired by one of the many disturbing indicators of the state of Philippine education – the results of the National Achievement Test, in which grade school pupils scored close to 57.

The reversal of numbers in the campaign name – from 57 to 75 – symbolizes what the movement is trying to do: *turn things around*, about radically rethinking the way we look at our education system and the way we support it. We believe that this kind of rethinking will help turn around the dismal trends in Philippine education, and eventually change statistics from 57 to 75.

57-75 advocates *Focusing* on helping students stay in school, enhancing reading proficiencies, and improving achievement rates in math, science, and English; student and school *Performance*; and *Community Empowerment and Engagement*.

57-75 wishes to acknowledge the Ateneo Center for Educational Development for supervising the workshop. Much gratitude is also given to the League of Corporate Foundations' Committee on Education which funded the workshop through a grant provided by TeaM Energy Foundation, as well as to Jollibee Foundation for additional logistical support.

57-75 would also like to especially acknowledge the master teachers from the pilot sites – without their commitment, this workbook would not have been possible. We also extend our appreciation to the reviewers, editors and encoders of ACED who accommodated this project into their existing workload.

57-75 is also very grateful to the initial pool of corporate donors who have pledged to help in the reproduction of this workbook: TeaM Energy Foundation, Petron Foundation, Pilmico Corporation, BPI Foundation, Metrobank Foundation and Insular Life Foundation. Thank you for helping to reverse the education crisis!

In behalf of the National Task Force –



MARIO A. DERIQUITO

WORKBOOK ON GRADE 6 MATHEMATICS

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Lesson 1: Giving the meaning of expression.
(Competency A. 1.1.1)

Exercise Set A

Directions: Write a numerical expression for the following items.

1. The sum of seven and eleven
2. Three subtracted from fifteen
3. Seven times eight
4. The quotient of twenty and two
5. Fifteen less than four times seven
6. The quotient of fifteen and five subtracted from the product of fifteen and five
7. Twice Annie's age plus ten
8. Nine more than thrice Romy's age
9. One half of thirty
10. The square of the sum of ten and eight

Exercise Set B

Directions: Write a numerical expression for the following items.

1. The sum of sixty and ninety
2. Thirteen subtracted from fifty
3. Seventeen times twenty
4. Twenty plus twice seven
5. Five centimeters longer than one metre
6. The square of five plus the square of nine
7. The quotient of sixty and five
8. Twenty less than five times eight
9. The cost of three dozen of eggs at thirty pesos per dozen
10. A third of the sum of seven and eight

Lesson 2: Evaluating an expression involving exponents.
(Competency A. 1.1.2)

Exercise Set A

Directions: Fill in the blanks with the correct answer.

1. In 4^2 , _____ is the base
2. $9^3 =$ _____ x _____ x _____
3. $5^4 =$ _____ is the exponent
4. $2^6 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times$ _____
5. $4 \times 4 \times 4 \times 4 =$ _____ in exponential form
6. 36 is equal to _____²
7. $6 \times 6 \times 6 = 6$ to the _____ power
8. Ten to the second power is written as _____
9. Eight with exponent five is written as _____
10. $7 \times 7 \times 7 \times 7 \times 7 =$ seven with exponent _____

Exercise Set B

Directions: Supply the missing numbers.

1. 10^2 means _____ x _____
2. 5^3 is equal to _____
3. Answer $2^4 =$ _____
4. The sum of four and five is equal to 3 to the _____ power
5. 49 is equal to _____²
6. $20 - 4 =$ _____ in exponential form
7. Combine 75 and 25 will give you _____ which is equal to 10^2
8. 81 when change to a number in exponential form is _____
9. The product of 8^2 is also equal to _____³
10. The sum of 100 and 44 = _____ in exponential form

Lesson 3: Evaluate an expression with two different operations with or without exponents and parentheses / grouping symbols. (Competency A. 1.1.3)

Exercise Set A

Direction: Evaluate the following expressions below.

1. $9 + 6 \div 3$

2. $7 \times 8 - 40$

3. $95 - 4 \times 3$

4. $(2 \times 5^2) + 10$

5. $(8 \div 2) + 2^3$

6. $95 \div (5^2 - 20)$

7. $72 \div 12 + 9$

8. $100 + 4 \times 3$

9. $10^3 - (4^2 + 3^3)$

10. $(5 + 3)^2 \div 2^2$

Exercise Set B

Direction: Evaluate the following expressions below.

1. $(90 - 40) \div 8$

2. $85 + 6 \times 4$

3. $7 \times 8 \div 4$

4. $(85 \div 5) + 100$

5. $(35 \div 5) + 30$

6. $7 \times 3 + 20$

7. $12 + 5 \times 4$

8. $(45 \div 9) + 14$

9. $20 - (12 \div 4)$

10. $50 + (42 \div 6)$

**Lesson 4: Evaluating expression with more than 2 operations with or without exponents and parentheses/ grouping symbols.
(Competency A. 1.1.4)**

Exercise Set A

Direction: Evaluate the following expressions neatly and correctly.

1. $64 - 8 \times 2 + 5 =$
2. $17 - 5 + 4 \div 2 =$
3. $36 \div 2 + 2 - 2^2 =$
4. $63 \div 3 + 4 - (6 - 2) =$
5. $6 \times 7 \div 3 - 8 + 3 =$
6. $(45 \div 9) + (4 \times 12) =$
7. $27 - 3 \times 2 + 15 \div 5 =$
8. $12 \div 2 + 8 \times 4 =$
9. $2 \times 40 - 18 \div 9 + 13 =$
10. $(20 - 6) + (9 - 6) \times 16 =$

Exercise Set B

Direction: Evaluate the following expressions neatly and correctly.

1. $42 \div 6 \times 8 - 7 =$
2. $18 + 14 \times 2 - 5 =$
3. $4 \times 8 \div 2 + 7 =$
4. $(3 + 2)^2 + (6 \times 5) =$
5. $32 \div 8 + 3 - 5 + 6 =$
6. $4^2 + 4 \times 7 - (10 \times 6) =$
7. $15 + 8 - 8 \times 3 \div 6 =$
8. $(78 - 2) + (2^3 \times 8) =$
9. $5^2 + 10(4 \times 6) =$
10. $72 \div 8 - 2 + 5 =$

**Lesson 5: Apply the order of operation in solving 2 –3 step problems.
(Competency A. 1.2)**

Exercise Set A

Direction: Perform the indicated operations.

1. $(18 \div 3) + (10 + 5) = N$
2. $[32 - (2 \times 9)] + (54 \div 6) = X$
3. $4(6 + 8) - (3 \times 9) = Y$
4. $(12 - 17) \times (5 + 4) = Z$
5. $(12 \times 7) - (18 - 9) = N$
6. $101 - x5 + 28 \div 4 = N$
7. $9 + 72 \div 8 \times 3 - 2 + 7 = X$
8. $3 \times 8 + 36 \div 4 - 15 = X$
9. $50 + 42 \div 6 - 4 \times 5 = N$
10. $27 - 3 \times 2 + 15 \div 5 = N$

Exercise Set B

Direction: Perform the indicated operations.

1. $5 \times 9 \div 3 + 8 =$
2. $(12 + 6) - (8 + 4) =$
3. $72 \div 9 \times 3 - 4 + 6 =$
4. $32 \div 8 \times 3 - 5 + 9 =$
5. $15 \div 3 \times 4 - 9 + 3 =$
6. $9 - 3 + 5 \times 4 \div 2 =$
7. $45 \div 9 + 8 - 6 =$
8. $18 \times 4 - 10 + 5 =$
9. $6 \times 7 \div 3 - 8 + 3 =$
10. $(5 \times 8) \times [40 - (320 \div 80)] =$

**Lesson 6: Solving 2 –3 step word problem involving whole numbers.
(Competency A. 1.2.2)**

Exercise Set A

Direction: Read each problem and show neat and clear solutions.

- A. Mr. Cruz harvested 2867 sacks of rice from the first harvest, 1996 from the second; 996 from the third. He sold 4390 sacks of rice. How many sacks were not sold?

1. Solution No. 1 _____
2. Solution No. 2 _____

- B. Orange juice drinks were to be distributed to the schools in the District of Nueva Valencia South. 950 packs were given to La Paz Elementary School, 875 to Igdarapdap Elementary School, 1250 to Cabalaynan Elementary School. If there are 5000 packs of juice drinks, how many were distributed to different schools? How many packs were not given?

3. First Solution _____
4. Second Solution _____

- C. A Toyota dealer kept his sales records for all types of vehicles for 4 years; 1236 on the first year, 987 on the second, 827 on the third and 738 on the fourth year. What is his annual average sale?

5. Solution No. 1 _____
6. Solution No. 2 _____

- D. Raul got 76 in his first Math test, 81 in the second, 84 in the third, and 83 in the fourth, and 86 in the fifth. What is his average score for the 5 tests?

7. Solve the first step: _____
8. Solve the second step: _____

- E. A Girl Scout bought the following items from the Girl Scout Council: 4 meters of cloth at P85.00 per meter, 15 neckerchiefs at P15.00 each, 15 badges at P4.00 each. How much change will she receive if she has P1,000.00?

9. Solve for the total amount of items bought: _____
10. Solve for the change: _____

**Lesson 6: Solving 2 –3 step word problem involving whole numbers.
(Competency A. 1.2.2)**

Exercise Set B

Direction: Read each problem and show clear and neat solutions.

- A. Mr. Garlan harvested 3, 452 sacks of rice from the first harvest, 2, 385 from the second, 1, 780 from the third. He sold 5, 275 sacks of rice. How many sacks were not sold?

1. Solution No. 1 _____
2. Solution No. 2 _____

- B. Orange juice drinks were to be distributed to the schools in the District of Nueva Valencia South. 950 packs were given to La Paz Elementary School, 785 to Igdarapdap Elementary School, 1, 370 to Cabalaynan Elementary School. If there are 5, 000 packs of juice drinks, how many were distributed to different schools? How many packs were not given?

3. First Solution: _____
4. Second Solution: _____

- C. A Toyota dealer kept his sales records for all types of vehicles for 4 years. 1, 623 on the first year, 879 on the second, 728 on the third and 874 on the fourth year. What is his annual average sale?

5. Solution No. 1: _____
6. Solution No. 2: _____

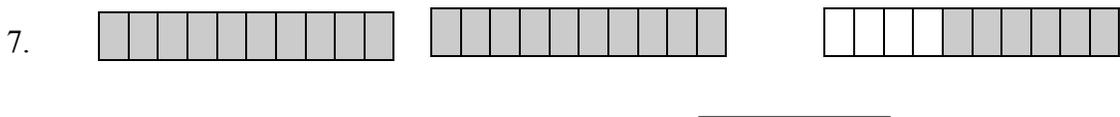
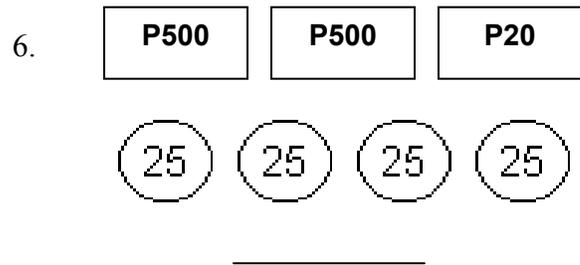
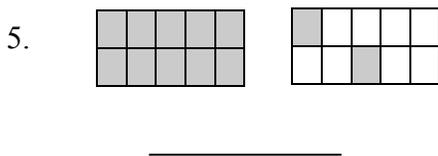
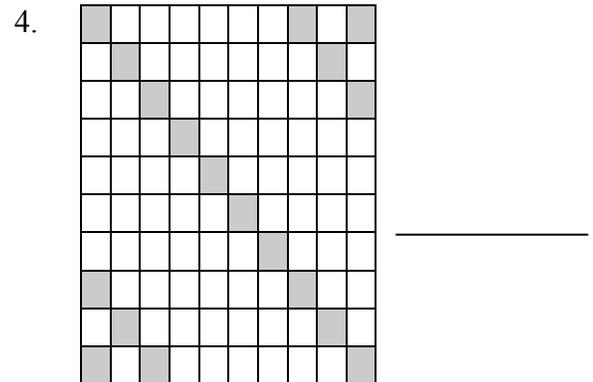
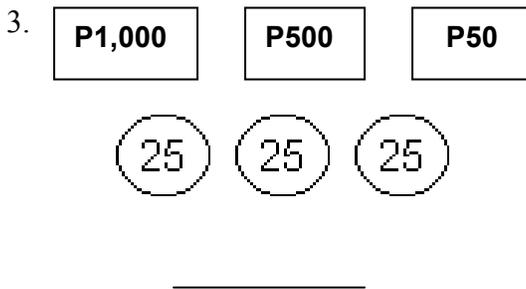
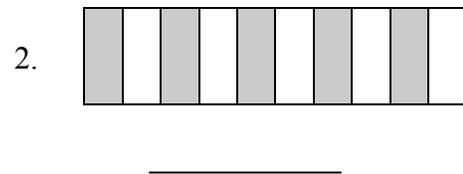
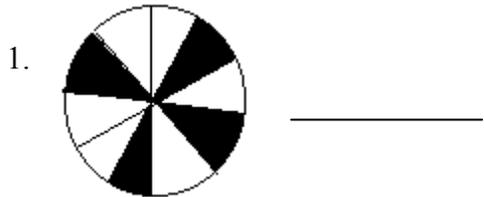
- D. A Boy Scout bought the following items from the BSP Council: 18 neckerchiefs at P16.00 each 15 badges at P6.00 each, 2 pairs of type B uniform at P150.00 per pair. How much did he pay for neckerchiefs only? For badges? For 2 pairs of uniform? How much did he pay for all items?

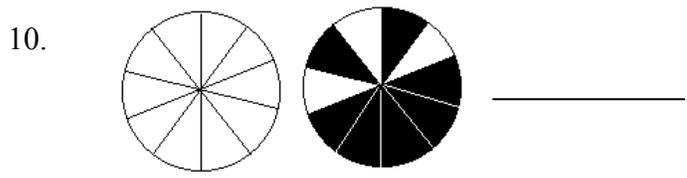
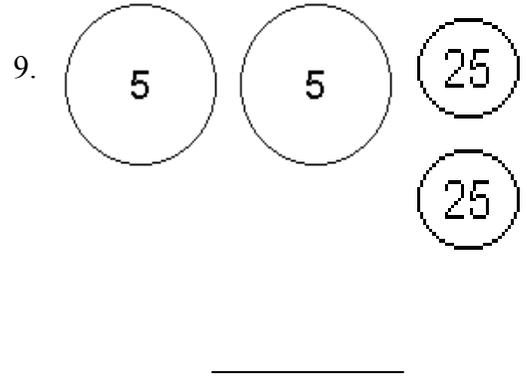
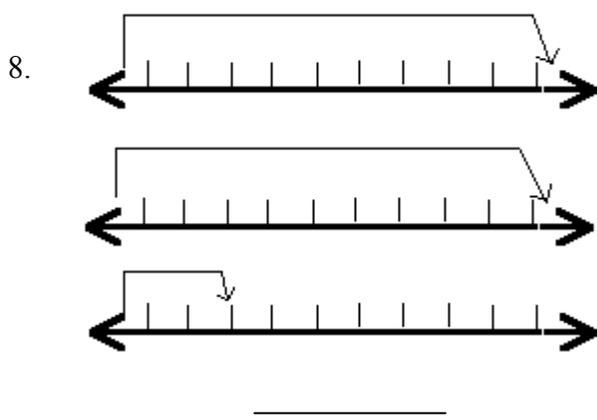
7. Neckerchiefs _____
8. Badges _____
9. 2 pairs of uniform _____
10. Total _____

**Lesson 7: Naming the decimal for a given model (region, blocks, money, number line)
(Competency B. 1.1)**

Exercise Set A

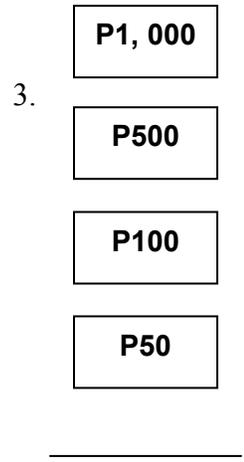
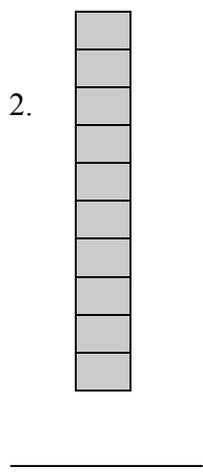
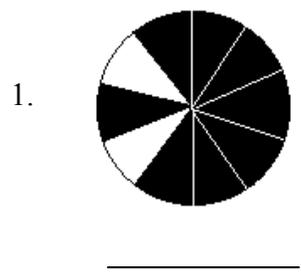
Direction: Name the decimal represented by the given models. Write your answer on the blank.

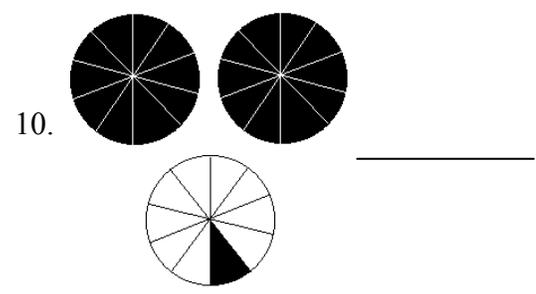
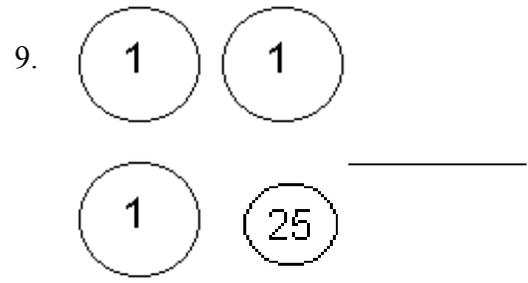
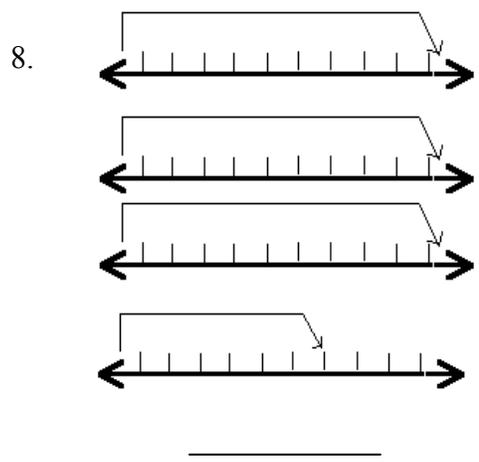
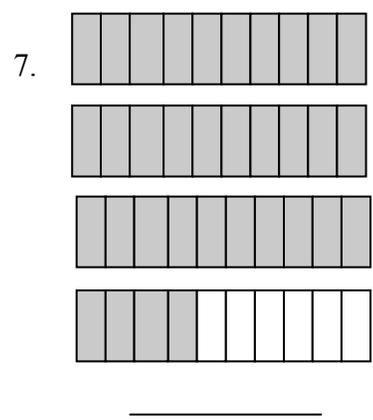
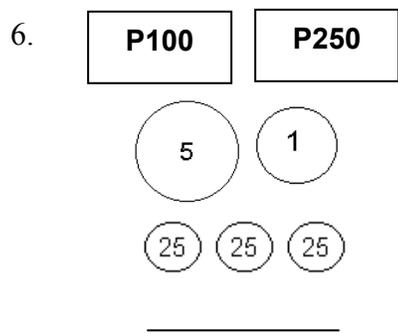
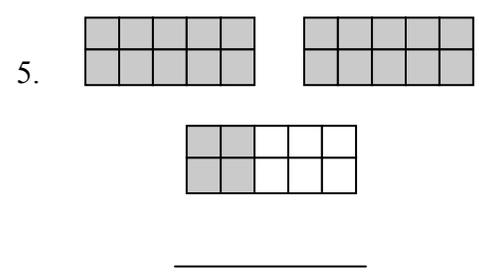
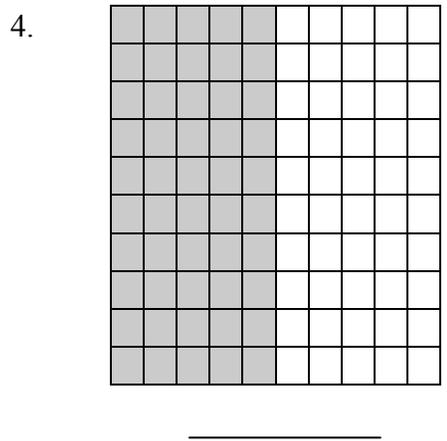




Exercise Set B

Direction: Name the decimal represented by the given models. Write your answer on the blank.



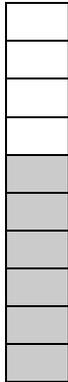


Lesson 8: Uses of different models to show a given decimal.
(Competency B 1.2)

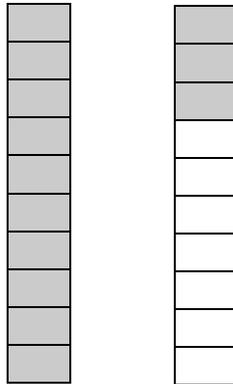
Exercise Set A

Direction: Name the decimal represented by the given models. Write your answer on the blank.

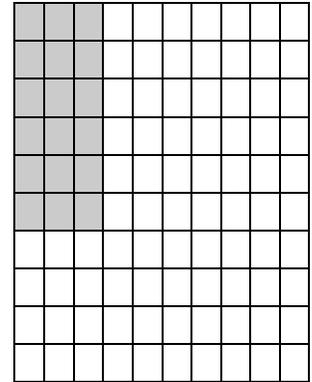
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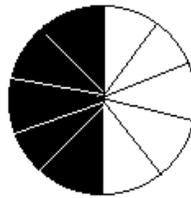
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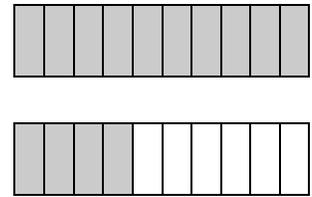
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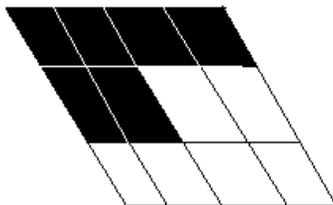
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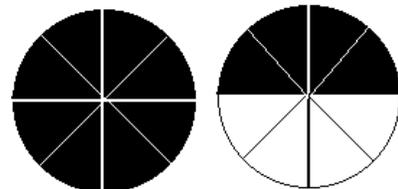
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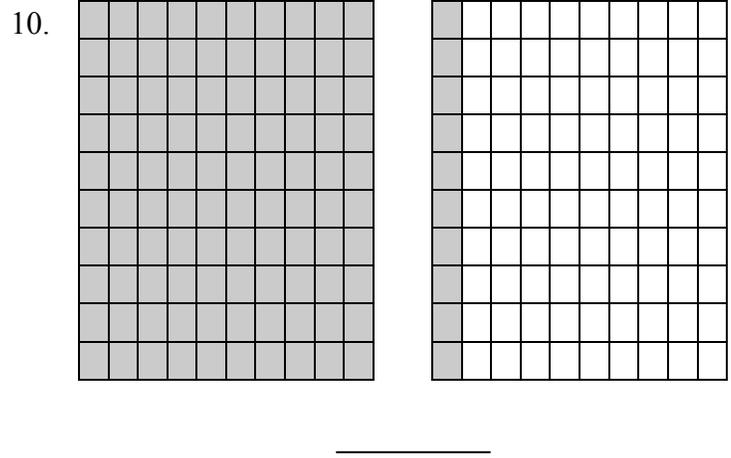
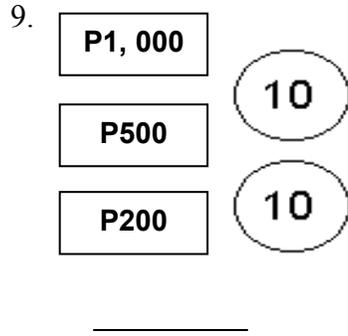


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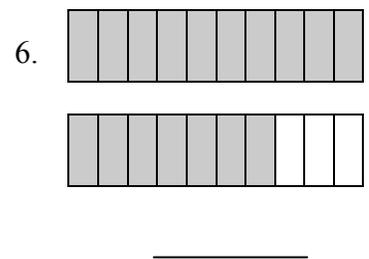
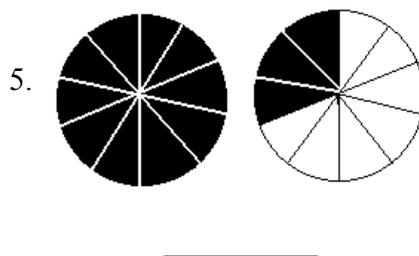
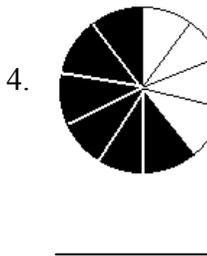
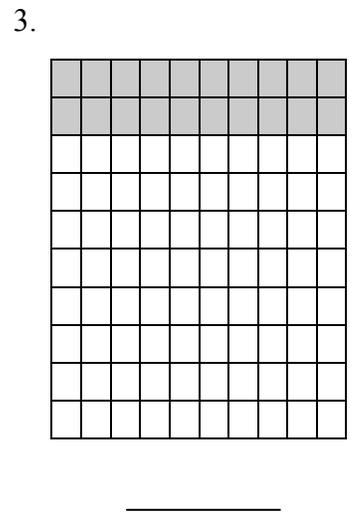
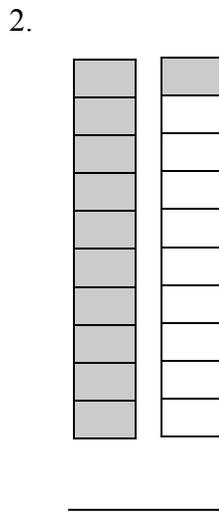
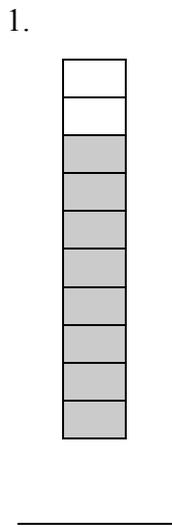
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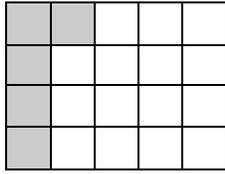


Exercise Set B

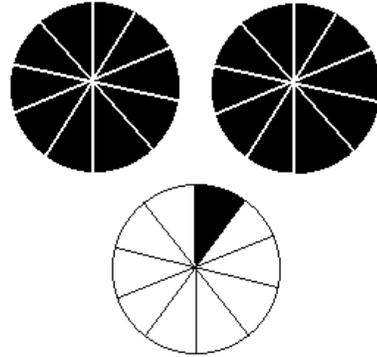
Direction: Name the decimal represented by the given models. Write your answer on the blank.



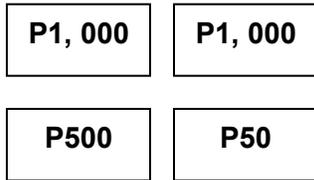
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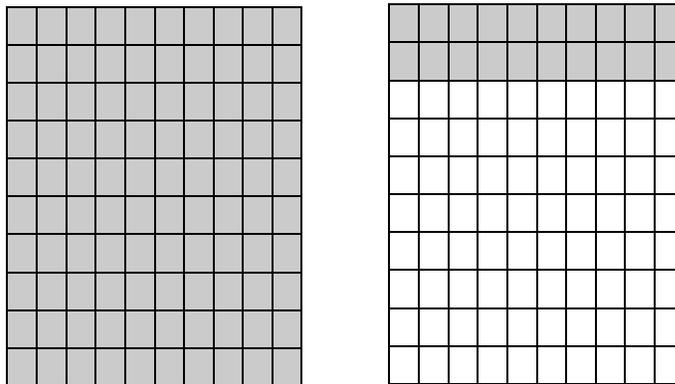
8.



9.



10.



Lesson 9: Renaming fractions whose denominators are in powers of ten.
(Competency B. 2)

Exercise Set A

Direction: Rename the fractions in decimal form.

1. $\frac{2}{10}$

2. $\frac{9}{100}$

3. $\frac{15}{100}$

4. $\frac{128}{1000}$

5. $\frac{6}{100}$

6. $\frac{75}{1000}$

10. $\frac{82}{100}$

8. $\frac{95}{1000}$

9. $\frac{5}{10}$

10. $\frac{8}{1000}$

Exercise Set B

Direction: Rename the fractions in decimal form.

1. $\frac{3}{10}$

2. $\frac{5}{100}$

3. $\frac{7}{1000}$

4. $\frac{14}{100}$

5. $\frac{16}{1000}$

6. $\frac{18}{1000}$

7. $\frac{9}{100}$

8. $\frac{11}{1000}$

9. $\frac{19}{1000}$

10. $\frac{2}{1000}$

**Lesson 10: Identify the value / place value of a digit in a given decimal.
(Competency B. 3.1)**

Exercise Set A

Direction: Identify the value and place value of the underlined digit.

PLACE VALUE

VALUE

1. 6. 8743
2. 0. 6024
3. 3. 7503
4. 821. 405
5. 141. 0823
6. 92. 1458
7. 7. 0008
8. 5. 4812
9. 51. 9216
10. Copy the decimals that have 5 in the ten thousands place.
 - a. 5. 5543
 - b. 19. 5555
 - c. 6. 4625
 - d. 5555
 - e. 3. 4835

**Lesson 10: Identify the value / place value of a digit in a given decimal.
(Competency B. 3.1)**

Exercise Set B

Direction: Identify the value and place value of the underlined digit

PLACE VALUE

VALUE

1. 3. 2741

2. 53. 0018

3. 173. 530

4. 30. 003

5. 3. 4385

6. 1. 0015

7. 0. 8051

8. 465. 3210

9. 102. 41695

10. Write in numerals then identify the place value and value of each digit:

One and thirteen hundredths

Lesson 11: Reading decimals through ten thousandths.
(Competency B. 3.2)

Exercise Set A

Direction: Read the following decimals correctly.

1. 0.4
2. 0.06
3. 0.009
4. 0.0089
5. 0.3962
6. 0.0007
7. 8.0025
8. 42.51
9. 13.632
10. 450.6894

Exercise Set B

Direction: Read the following decimals correctly.

1. 0.5
2. 0.07
3. 0.008
4. 0.0067
5. 0.4569
6. 0.0009
7. 4.0076
8. 79.18
9. 16.785
10. 392.4321

Lesson 12: Write decimals through the ten thousandths in different notations – standard and expanded notation.
(Competency B. 3.3)

Exercise Set A

Direction: Write the following in standard or expanded notations using fractional form and exponential form.

_____ 1. $(5 \times 10) + (6 \times 1) + (8 \times 0.1) + (9 \times .01)$

_____ 2. $(7 \times 10) + (2 \times 1) + (5 \times .01) + (3 \times .001)$

_____ 3. $(8 \times 10) + (6 \times 1) + (4 \times .1) + (8 \times .01)$

_____ 4. $(3 \times 10) + (2 \times 1) + \left(4 \times \frac{1}{1000}\right) + \left(6 \times \frac{1}{.1000}\right)$

_____ 5. $(4 \times 10) + (9 \times .01) + (6 \times .001)$

_____ 6. 9.045

_____ 7. .048

_____ 8. 7.005

_____ 9. 70.1253

_____ 10. $(8 \times 10^0) + (7 \times 10^{-1}) + (3 \times 10^{-2}) + (5 \times 10^{-3})$

**Lesson 12: Write decimals through the ten thousandths in different notations – standard and expanded notation.
(Competency B. 3.3)**

Exercise Set B

Direction: Write the following in standard or expanded notations using fractional form and exponential form.

_____ 1. $(5 \times 1) + (6 \times 0.1) + (9 \times .01)$

_____ 2. $(9 \times 10) + (3 \times 1) + (4 \times .01) + (3 \times .001)$

_____ 3. $(6 \times 10) + (8 \times 1) + (5 \times .1) + (8 \times .01)$

_____ 4. $(2 \times 10) + (3 \times 1) + \left(6 \frac{1}{1000}\right) + \left(6 \frac{1}{1000}\right)$

_____ 5. $(9 \times 10) + (4 \times .01) + (9 \times .001)$

_____ 6. 4.095

_____ 7. .083

_____ 8. 5.007

_____ 9. 12.7053

_____ 10. $(8 \times 10^0) + (7 \times 10^{-1}) + (3 \times 10^{-2}) + (6 \times 10^{-3})$

Lesson 13: Comparing and ordering decimals through ten thousandths.
(Competency B. 4)

Exercise Set A

Directions: Compare the following numbers. Use $>$, $<$ or $=$ inside the box.

A.

- | | | | |
|----|--------|----------------------|--------|
| 1. | 0.614 | <input type="text"/> | 0.64 |
| 2. | 0.0861 | <input type="text"/> | 0.1680 |
| 3. | 0.709 | <input type="text"/> | 0.709 |
| 4. | 3.8 | <input type="text"/> | 8.3 |
| 5. | 76.1 | <input type="text"/> | 67.15 |

B. Order numbers from least to greatest. Write your answer on the blank.

- | | | | | |
|----|---------|---------|----------|----------|
| 1. | 3.756 | 37.56 | 375.6 | 0.3756 |
| | _____ | _____ | _____ | _____ |
| 2. | 0.2468 | 0.2486 | 0.2648 | 0.2846 |
| | _____ | _____ | _____ | _____ |
| 3. | 11.0101 | 11.0111 | 11.01101 | 1.110101 |
| | _____ | _____ | _____ | _____ |
| 4. | 2313.2 | 23.132 | 2.3132 | 231.32 |
| | _____ | _____ | _____ | _____ |
| 5. | 555.555 | 55.5555 | 5.5555 | 5555.55 |
| | _____ | _____ | _____ | _____ |

Lesson 13: Comparing and ordering decimals through ten thousandths.
(Competency B. 4)

Exercise Set B

Directions: Compare the following numbers. Use $>$, $<$ or $=$ inside the box.

A.

1. 0.03 0.3
2. 0.406 0.604
3. 0.0095 0.0095
4. 2.765 2.675
5. 39.444 394.44

B. Order numbers from least to greatest. Write your answer on the blank.

6. 0.481 0.38 0.256 0.7349

7. 2.461 2.3392 2.6789 2.7666

8. 0.93 6.87 5.241 6.786

9. 62.1254 26.2351 262.351 26.5321

10. 905.928 95.7654 5.8642 5.6248

**Lesson 14: Round decimals through ten thousandths.
(Competency B. 5)**

Exercise Set A

Directions: Round each decimal to the underlined place value.

1. 0. 563 _____

2. 3. 645 _____

3. 81.137 _____

4. 0. 8473 _____

5. 12. 1321 _____

6. 25. 6734 _____

7. 3. 1573 _____

8. 56. 3986 _____

9. 33. 4970 _____

10. 16. 9989 _____

Exercise Set B

Directions: Round each decimal to the underlined place value.

1. 0. 653 _____

2. 9. 456 _____

3. 18. 217 _____

4. 0. 8374 _____

5. 12. 2113 _____

6. 25. 4746 _____

7. 3. 7532 _____

8. 56. 1828 _____

9. 35. 6380 _____

10. 105. 9961 _____

Lesson 15: Estimating sums and differences of whole numbers and decimals.
(Competency C. 1)

Exercise Set A

Direction: Round off numbers to the nearest hundredths then find the estimated sums or differences.

1.
$$\begin{array}{r} 0.793 \\ +0.251 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.856 \\ +0.321 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 8.460 \\ +3.185 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 36.072 \\ +13.198 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 40.106 \\ +20.957 \\ \hline \end{array}$$

6. $9.624 + 6.7186 = N$

7. $9.6095 + 0.328 + 4.765 = N$

8. $9.623 + 72.196 + 9.1874 = N$

9. $9.009 - 39.758 = N$

10. $956.174 - 308.764 = N$

Lesson 15: Estimating sums and differences of whole numbers and decimals.
(Competency C. 1)

Exercise Set B

Direction: Round off numbers to the nearest hundredths then find the estimated sums or differences.

1. $37.581 + 71.947 + 84.379 = N$
2. $9.0576 + 7.0057 + 28.4555 = N$
3. $4.727 + 2.0962 + 0.9542 + 1.8152 = N$
4. $16.234 - 14.103 = N$
5. $758.947 - 235.506$

Directions: Analyze and solve. (Round off numbers to nearest tenths)

6. Sammy weighs 64.28 kg. and Piolo weighs 47.21 kg. About how much more does Sammy weigh?
7. A sweater costs P498.75 and a t-shirt cost P385.95. About how much does it cost to buy both items?
8. Shary ran 2.87 km and Susie ran 5.05 km. about how much farther did Susie run?
9. Margie bought a watch for P1,788.75 and a ring for P2,728.85. She gave the cashier P5,000.00. About how much change did she received?
10. Father gave mother three thousand pesos for the different bills due for payment. Electric bill- P1,487.68, water bill – P796.34, telephone bill – P596.72. How much did mother pay for the bills?

Lesson 16: Add and subtract whole numbers and decimals.
(Competency C. 2)

Exercise Set A

Directions: Find the sum or difference.

1.
$$\begin{array}{r} 0.40 \\ +0.52 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.17 \\ +0.20 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 3.9 \\ +0.5 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 0.9 \\ -0.3 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 0.99 \\ -0.56 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 3.91 \\ -0.49 \\ \hline \end{array}$$

7. $4.8 + 32.59 + 3.87$

8. $1.25 + 0.10 + 19.68$

9. $5 - 0.9246$

10. Subtract the sum of 0.0043, 0.08, 0.2, 0.75 from five.

Exercise Set B

Directions: Find the sum or difference.

1.
$$\begin{array}{r} 0.3 \\ +0.25 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.17 \\ +0.21 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 9.3 \\ +0.9 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 0.8 \\ +0.60 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 0.96 \\ -0.95 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 8.41 \\ -0.92 \\ \hline \end{array}$$

7. $3.8 + 16.33 + 0.78$

8. $0.25 + 0.95 + 28.076$

9. $9 - 0.7631$

10. Add 0.0297 to the difference of 0.486 and 0.3257.

**Lesson 17: Adding and subtracting decimals through ten thousandths without or with regrouping (with concrete visual models)
(Competency C. 3)**

Exercise Set A

Directions: Find the sum or difference.

$$1. \begin{array}{r} 0.27 \\ + 0.13 \\ \hline 0.23 \end{array}$$

$$2. \begin{array}{r} 0.14 \\ + 0.22 \\ \hline 0.54 \end{array}$$

$$3. \begin{array}{r} 0.4274 \\ + 0.0700 \\ \hline 0.1035 \end{array}$$

$$4. \begin{array}{r} 0.4274 \\ + 0.0700 \\ \hline 0.1035 \end{array}$$

$$5. \begin{array}{r} 0.4274 \\ + 0.0700 \\ \hline 0.1035 \end{array}$$

$$6. \begin{array}{r} 0.9 \\ - 0.2 \\ \hline \end{array}$$

$$7. \begin{array}{r} 0.57 \\ - 0.4 \\ \hline \end{array}$$

$$8. \begin{array}{r} 0.57 \\ - 0.48 \\ \hline \end{array}$$

$$9. \begin{array}{r} 0.2976 \\ - 0.0887 \\ \hline \end{array}$$

$$10. \begin{array}{r} 0.5548 \\ - 0.1259 \\ \hline \end{array}$$

Exercise Set B

Directions: Write in column form then perform the indicated operation.

$$1. 3.52 + 6.78 + 8.503 = N$$

$$2. 4.8 + 5.64 + 7.8132 = N$$

$$3. 82.0132 + 68.5678 = N$$

$$4. 193.6 + 7.831 + 2 - 6 = N$$

$$5. 2 - 75 + 67.831 + 325.678 = N$$

$$6. 9 - 2.751 = N$$

$$7. 15.6 - 12.78 = N$$

$$8. 139.72 - 38.488 = N$$

$$9. 80.5 - 6.8314 = N$$

$$10. 4.168 - 1.5986 = N$$

Lesson 18: Add and subtract mixed decimals with regrouping.
(Competency C. 4)

Exercise Set A

Directions: Perform the indicated operation.

1.
$$\begin{array}{r} 16.00 \\ 15.47 \\ + 0.324 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 39.02 \\ + 3.81 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 30.9048 \\ + 9.632 \\ \hline 6.00085 \end{array}$$

4. $1.1256 + 1.43 + 6.5761$

5. $0.5223 + 0.2561 + 16.203$

6. $10.73 - 0.3593$

7. $9.368 - 0.9$

8. $73.800 - 3.099$

9. What number is 29.525 more than 15.475?

10. What will you get when 61.54 is added to the difference of 76.2 and 57.8245?

Exercise Set B

Directions: Perform the indicated operation.

1.
$$\begin{array}{r} 19.00 \\ + 20.46 \\ \hline 1.24 \end{array}$$

2.
$$\begin{array}{r} 48.05 \\ + 9.81 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 60.008 \\ + 13.4 \\ \hline 6.39 \end{array}$$

4. $2.3572 + 0.31 + 3.867$

5. $0.481 + 3.006 + 12.8$

6. $15.005 - 0.990$

7. $65.8 - 12.631$

8. $90 - 4.2986$

9. What is the sum of 15.18, 9.37, 8.68, and 7.932?

10. Add 82.749 to the difference of 18.9 and 15.293.

Lesson 19: Apply the different properties of addition to compute sums mentally.
(Competency C. 5)

Exercise Set A

Direction: Find the sum and identify the property used.

	<u>SUM</u>	<u>PROPERTY</u>
1. $7+9 = 9+7$		
2. $21+0$		
3. $0+19$		
4. $15+19 = 19+15$		
5. $12+(6+3) = (12+6) +3$		
6. $20+14 = 14+20$		
7. $(11+7) + (9+15) = (11+9)+(7+15)$		
8. $125+(200+80) = (125+200)+80$		
9. $(25+67) +75 = (25+75) + 67$		
10. $(56+123) + 144 = (56+144) +123$		

Lesson 19: Apply the different properties of addition to compute sums mentally.
(Competency C. 5)

Exercise Set B

Direction: Find the sum and identify the property used.

	<u>SUM</u>	<u>PROPERTY</u>
1. $6+9 = 9+6$		
2. $32+0$		
3. $0+35$		
4. $25+9 = 9+25$		
5. $15+(9+3) = (15+9)+3$		
6. $31+30 = 30+31$		
7. $65+23+14 = (65+14)+23$		
8. $225+(100+70) = (225+100) + 70$		
9. $(25+76) + 57 = (25+57)+76$		
10. $(12+17)+(9+16) = (12+9)+7+16$		

**Lesson 20: Writing an equation to solve word problems.
(Competency C. 6.1)**

Exercise Set A

Directions: Read the problems carefully then write an equation that will help solve each problem. Write your answers on your notebook.

1. Mother bought 8.5 kg of fruits, 3.5 kg of fish, 1.25 kg of vegetables. How many kg of food did she buy?
2. For her father's birthday, Glen bought a gift worth P185.90. How much money will be left if he gives P500 to the cashier?
3. Father cut a 3.5 m of wire from a 7.05 m piece of wire. How many meters of wire was left after father cut what he needed?
4. Give the total weight of 0.5 kg of mangoes, 1.75 kg of oranges, 2.2 kg of pomelos, and 1.5 kg of bananas.
5. A meat vendor has 66.8 kg of pork. She sold 49.5 kg. How many kg were left?
6. Nora's father found a 0.9m of wood. He used 0.055m from it. What's left of the wood?
7. Ms. Sison bought 2.5 kg of refined sugar to be sold in her store. The next day she bought another 3.5 kg and on the third day she bought 6.5 kg. What is the total weight of refined sugar that she bought?
8. A live pig weighed 386.7 lbs. After it was cleaned, when it weighed 319.6254 lbs. How much weight was lost?
9. Everybody in Mang Jose's family is earning a living. Mang Jose earns P175.50 a day, Aling Sela earns P125.00; Nilo earns P70.00, and Rona earns P45.00. How much do they earn altogether?
10. John drove 48.62 km in the first hour, 39.75 km in the second hour and 41.96 km in the third hour. How far did he drive in three hours?

**Lesson 20: Writing an equation to solve word problems.
(Competency C. 6.1)**

Exercise Set B

Directions: Read the problems carefully then write an equation that will help solve each problem. Write your answers on your notebook.

1. Mother bought 9.5 kg of fruits, 4.5 kg of fish, 3.5 kg of vegetables. How many kg of food did she buy?
2. For her mother's birthday, Sally bought a gift worth P295.90. How much of his five-hundred peso bill was left?
3. Father cut a 4.5 m of wire from a 9.07 m piece of wire. How many meters of wire was left after father cut what he needed?
4. Give the total weigh of 3.5 kg of mangoes, 2.75 kg of oranges, 4.7 kg of pomelos, and 3.6 kg of bananas.
5. A meat vendor has 88.6 kg of pork. She sold 56.8 kg. How many kg were left?
6. Ben's father found a 6.9m of wood. He got 2.087m from it. What's left of the wood?
7. Ms. Sison bought 6.5 kg of refined sugar to be sold in her store. The next day she bought another 4.5 kg and 7.5 kg on the third day. What is the total weight of refined sugar that she bought?
8. A live pig weighed 549.85 lbs. After it was cleaned, it weighed 385.65 lbs. how much weight was lost?
9. Everybody in Mang Ados family is earning a living. He earns P286.50 a day, Aling Susan earns P150.00; Ned earns P85.00, and Rose earns P58.00. How much do they earn altogether?
10. Jess drove 56.2 km in the first hour, 48.75 km in the second hour and 45.75 km in the third hour. How far did he drive in three hours?

Lesson 21: Solve 1 to 2 step word problems involving addition and subtraction of decimals including money.
(Competency C. 6.2)

Exercise Set A

Direction: Read the problems carefully then write an equation that will help solve each problem. Write your answers on your notebook.

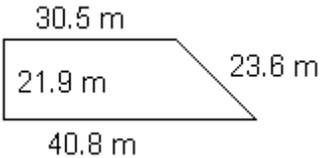
1. At the start of the experiment Roy's candle was 31.06 cm. After it was lighted and used it became 15.97 cm. how long was the part used in the experiment?
2. Laila's worked for 6.7 hours last Tuesday, 5.9 hours last Thursday, and 7.8 hours last Saturday. How many hours did she work last week?
3. Jun weighs 3.15 kg more than Rey. If Rey's weight is 46.75 kg, what is Jun's weight?
4. May bought some fruits to sell; bananas were worth P250, mangoes were worth P480, atises were worth P550, and apples were worth P425. After selling them to her neighbors, she had P2, 046.00. How much profit did she get?
5. For their outreach project, five classes gave these amounts – P1,356; P979.80; P875.25; P1,084.50; P753. How much was spent for medicine if P2,250 of the amount was spent for rice and P400 for clothing?
6. The Cruz family spends P3,200.00 for food in a month, P1,040.00 for electricity, P918.00 for the telephone bill and P4,500.00 for the other expenses. How much do the family save if their monthly income is P15, 540.00?
7. In 2006, a school had enrollees of 5,908 pupils. In 2007, the same school had 6, 519 pupils. How many more pupils were enrolled in 2006 than in 2007?
8. What number will you increase by 2, 816 to get 5, 229?
9. Joan had three P1, 000.00 bills. She bought a dress costing P1, 350 and a shoes costing P1, 200.00. How much money did she have left?
10. Window washers had 5 days to clean 1,500 windows in a mall. The first day they cleaned 284 windows, the second day 298, the third day 317 and the fourth day 305. How many windows should be cleaned on the last day?

Lesson 21: Solve 1 to 2 step word problems involving addition and subtraction of decimals including money.
(Competency C. 6.2)

Exercise Set B

Direction: Read the problems carefully then write an equation that will help solve each problem. Write your answers on your notebook.

1. Martial law in the Philippines was declared in 1972. How many years ago was that?
2. A DVD player marked at P3, 497.97 was bought for P1, 769.75; a TV marked at P9, 415.50 was bought P6, 785.50. How much was saved in buying the two items?

3. What is the perimeter of the figure?


4. Dory bought 8.5 metres of printed cloth material and 12.75 metres of plain cloth material. If she used 18.75m for curtain, how much is left for the cloth material?
5. Frank made the following deposits last month; P15208, P17425, P8166, P19516. He withdraws P 46722 to buy a computer. How much money was left?
6. Ronald is a grade 6 pupil who sells old newspaper and empty bottles in the morning then goes to school in the afternoon. Here are his daily earnings from Monday to Friday: P37.50, P28.75, P31.00, P35.25, P27.50. How much did he get all in all?
7. Wilson bought a refrigerator for P12345 and a washing machine for P5650. How much did he pay in all?
8. A furniture factory sold furniture sets worth P75, 450; P50, 675; P85, 650; and P45, 750 in the four quarters of 2007. What was the total sales of the factory for 2007?
9. A certain person donated 13450 Mathematics books, 14678 Science books, 23450 English books and 18450 Filipino books. How many books in all did he donate in all?
10. In a library, there are 1, 583 Math books and 763 Physics books, how many more Math books than Physics books were there?

Lesson 22: Describing answer in a complete sentence with proper labels/units.
(Competency C. 6.3)

Exercise Set A

Direction: Read the problems carefully. Write your answer in a complete sentence with proper labels/units. Write your answers on your notebook.

1. Mother has two one thousand peso-bill. She will pay P465.95 for electricity and P715.00 for water. How much of the money will she have after paying the bills?
2. Before the experiment, Sam's candle was 35.08cm. After it was lighted and used, it became 19.05 cm. How long was the part of the candle used in the experiment?
3. Engineer Gacho accepted a project amounting to P2700, 000. He allotted P1450000 for materials and P1055000 for labor. How much did he get from the project?
4. Josie worked 7.5 hours on Monday, 6.8 hours on Tuesday and 7.4 hours on Wednesday last week. How many hours did she work in the three days last week?
5. Riza made the following deposits in the bank: P1, 250.00, P850.00, P1, 350.00 and P890.00. She will withdraw P1, 250.00 for her tuition and P265.00 for her books. How much of her money will be left?
6. Ivy weighs 4.7 kg more than Carla. If Carla's weight is 37.95 kg, what is Ivy's weight?
7. In 2006, a school had enrollees of 6765 pupils. In 2007, the same school had 6657 enrollees. How many more pupils were enrolled in 2006 than in 2007?
8. Mr. Reyes has P7500.00. He spent P2800 for food, P975.00 for transportation and P375.00 for other expenses. How much of his money was left?
9. Thea bought some fruits to sell, banana worth P375.00, mangoes worth P550.00, oranges worth P425.00, and apples worth P510.00. After selling them to her neighbors, she had P 2210.00. How much profit did she get?
10. For their project, three classes gave these amounts – P1250.00, P1075.00, and P995.00. How much was left if they spent P3105.00 for materials?

Lesson 22: Describing answer in a complete sentence with proper labels/units.
(Competency C. 6.3)

Exercise Set B

Direction: Read the problems carefully. Write your answer in a complete sentence with proper labels/units. Write your answers on your notebook.

1. Mother has two one thousand peso-bill. She will pay P572.85 for electricity and P982.00 for water. How much of the money will she have after paying the bills.
2. Before the experiment, Joey's candle was 36.09cm. After it was lighted and used, it became 21.04 cm. How long was the part of candle used in the experiment?
3. Engineer Edang accepted a project amounting to P2681000. He allotted P1345000 for materials and P1072000 for labor. How much did he get out of the project?
4. Myrna worked 8.5 hours on Monday, 7.6 hours on Wednesday and 6.8 hours on Friday last week. How many hours did she work in three days?
5. Alma made the following deposits in the bank: P1275.00, P980.00, P1425.00 and P995.00. She will withdraw P1530.00 for her tuition and P350.00 for her books. How much of her money will be left?
6. Irene weighs 5.5 kg more than Shaira. If Shaira's weight is 38.2 kg, what is Irene's weight?
7. In 2006, a school had 5785 enrollees. In 2007, the same school had 5756 pupils. How many more pupils were enrolled in 2006 than in 2007?
8. Mr. Roxas has P8, 785.00. He spent P2750.00 for food, P892.00 for transportation and P450.00 for other expenses. How much of his money is left?
9. Vilma bought some fruits to sell, banana worth P384.00, mangoes worth P552.00, oranges worth P426.00, and apples worth P515.00. After selling them to her neighbors, she had P 2235.00. How much profit did she get?
10. For their project, three classes gave these amounts – P1275.00, P1086.00, and P992.00. How much was left if they spent P3120.00 for materials?

Lesson 23: Estimate the product of whole numbers and decimals.
(Competency D.1)

Exercise Set A

Directions: Estimate the products of the following equations by rounding them to the nearest whole number.

$$1. \begin{array}{r} 0.429 \\ \times 18 \\ \hline \end{array}$$

$$2. \begin{array}{r} 0.859 \\ \times 20 \\ \hline \end{array}$$

$$3. \begin{array}{r} 0.936 \\ \times 25 \\ \hline \end{array}$$

$$4. \begin{array}{r} 0.893 \\ \times 72 \\ \hline \end{array}$$

$$5. \begin{array}{r} 0.489 \\ \times 582 \\ \hline \end{array}$$

$$6. \begin{array}{r} 0.625 \\ \times 326 \\ \hline \end{array}$$

$$7. \begin{array}{r} 0.4283 \\ \times 461 \\ \hline \end{array}$$

$$8. \begin{array}{r} 0.596 \\ \times 187 \\ \hline \end{array}$$

$$9. \begin{array}{r} 6.25 \\ \times 8.15 \\ \hline \end{array}$$

$$10. \begin{array}{r} 4.35 \\ \times 9.75 \\ \hline \end{array}$$

Exercise Set B

Directions: Estimate the products of the following equations by rounding them to the nearest whole number.

$$1. \begin{array}{r} 0.459 \\ \times 16 \\ \hline \end{array}$$

$$2. \begin{array}{r} 0.819 \\ \times 10 \\ \hline \end{array}$$

$$3. \begin{array}{r} 0.863 \\ \times 25 \\ \hline \end{array}$$

$$4. \begin{array}{r} 0.389 \\ \times 50 \\ \hline \end{array}$$

$$5. \begin{array}{r} 0.841 \\ \times 328 \\ \hline \end{array}$$

$$6. \begin{array}{r} 0.256 \\ \times 320 \\ \hline \end{array}$$

$$7. \begin{array}{r} 0.7821 \\ \times 601 \\ \hline \end{array}$$

$$8. \begin{array}{r} 0.965 \\ \times 278 \\ \hline \end{array}$$

$$9. \begin{array}{r} 12.50 \\ \times 7.95 \\ \hline \end{array}$$

$$10. \begin{array}{r} 91.37 \\ \times 102.69 \\ \hline \end{array}$$

**Lesson 24: Multiplying up to 3 –digit factors by 1 to 2 digit factors with and without regrouping and with zero difficulty.
(Competency D. 2)**

Exercise Set A

Directions: Find the products of the equations below.

1.
$$\begin{array}{r} 0.246 \\ \times 0.4 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.02 \\ \times 0.09 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 0.326 \\ \times .04 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 0.57 \\ \times 0.04 \\ \hline \end{array}$$

5.
$$\begin{array}{r} .609 \\ \times .06 \\ \hline \end{array}$$

6.
$$\begin{array}{r} .704 \\ \times .08 \\ \hline \end{array}$$

7.
$$\begin{array}{r} .905 \\ \times .09 \\ \hline \end{array}$$

8.
$$\begin{array}{r} .930 \\ \times .08 \\ \hline \end{array}$$

9.
$$\begin{array}{r} .860 \\ \times .04 \\ \hline \end{array}$$

10.
$$\begin{array}{r} .609 \\ \times .06 \\ \hline \end{array}$$

Exercise Set B

Direction: Find the product of the equations below.

1.
$$\begin{array}{r} 0.321 \\ \times 0.2 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.04 \\ \times .8 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 0.452 \\ \times .03 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 0.724 \\ \times 0.5 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 0.692 \\ \times .04 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 0.509 \\ \times .06 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 0.690 \\ \times .07 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 0.781 \\ \times .08 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 0.936 \\ \times .09 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 0.879 \\ \times .07 \\ \hline \end{array}$$

Lesson 25: Multiply hundredths by hundredths.
(Competency D. 3)

Exercise Set A

Directions: Solve for the products of the following equations.

$$\begin{array}{r} 0.12 \\ 1. \times 0.14 \\ \hline \end{array}$$

$$\begin{array}{r} 0.15 \\ 2. \times 0.22 \\ \hline \end{array}$$

$$\begin{array}{r} 0.23 \\ 2. \times 0.31 \\ \hline \end{array}$$

$$\begin{array}{r} 0.31 \\ 4. \times 0.41 \\ \hline \end{array}$$

$$\begin{array}{r} 0.14 \\ 6. \times 0.09 \\ \hline \end{array}$$

$$\begin{array}{r} 0.32 \\ 6. \times 0.35 \\ \hline \end{array}$$

$$\begin{array}{r} 0.18 \\ 7. \times 0.45 \\ \hline \end{array}$$

$$\begin{array}{r} 0.37 \\ 8. \times 0.55 \\ \hline \end{array}$$

$$\begin{array}{r} 0.83 \\ 10. \times 0.53 \\ \hline \end{array}$$

$$\begin{array}{r} 0.79 \\ 10. \times 0.68 \\ \hline \end{array}$$

Exercise Set B

Directions: Solve for the products of the following equations.

$$\begin{array}{r} 3.75 \\ 1. \times 4.6 \\ \hline \end{array}$$

$$\begin{array}{r} 3.84 \\ 2. \times 5.3 \\ \hline \end{array}$$

$$\begin{array}{r} 7.59 \\ 3. \times 3.7 \\ \hline \end{array}$$

$$\begin{array}{r} 8.73 \\ 4. \times 7.4 \\ \hline \end{array}$$

$$\begin{array}{r} 9.49 \\ 5. \times 5.6 \\ \hline \end{array}$$

$$\begin{array}{r} 25.74 \\ 6. \times 5.4 \\ \hline \end{array}$$

$$\begin{array}{r} 43.82 \\ 7. \times 7.4 \\ \hline \end{array}$$

$$\begin{array}{r} 652.71 \\ 8. \times 8.5 \\ \hline \end{array}$$

$$\begin{array}{r} 765.34 \\ 9. \times 2.64 \\ \hline \end{array}$$

$$\begin{array}{r} 92.78 \\ 10. \times 4.36 \\ \hline \end{array}$$

Lesson 26: Multiplying mixed decimals by mixed decimals with hundredths.
(Competency D. 4)

Exercise Set A

Directions: Solve for the products of the following equations.

$$1. \begin{array}{r} 2.64 \\ \times 3.5 \\ \hline \end{array}$$

$$2. \begin{array}{r} 2.83 \\ \times 4.2 \\ \hline \end{array}$$

$$3. \begin{array}{r} 6.49 \\ \times 2.6 \\ \hline \end{array}$$

$$4. \begin{array}{r} 7.62 \\ \times 6.3 \\ \hline \end{array}$$

$$5. \begin{array}{r} 8.39 \\ \times 4.5 \\ \hline \end{array}$$

$$6. \begin{array}{r} 24.63 \\ \times 4.3 \\ \hline \end{array}$$

$$7. \begin{array}{r} 32.71 \\ \times 6.3 \\ \hline \end{array}$$

$$8. \begin{array}{r} 56.24 \\ \times 6.7 \\ \hline \end{array}$$

$$9. \begin{array}{r} 62.67 \\ \times 6.8 \\ \hline \end{array}$$

$$10. \begin{array}{r} 9.78 \\ \times 4.8 \\ \hline \end{array}$$

Exercise Set B

Direction: Find the products of the following equations.

$$1. \begin{array}{r} 2.64 \\ \times 3.5 \\ \hline \end{array}$$

$$2. \begin{array}{r} 2.83 \\ \times 4.2 \\ \hline \end{array}$$

$$3. \begin{array}{r} 6.49 \\ \times 2.6 \\ \hline \end{array}$$

$$4. \begin{array}{r} 7.62 \\ \times 6.3 \\ \hline \end{array}$$

$$5. \begin{array}{r} 8.39 \\ \times 4.5 \\ \hline \end{array}$$

$$6. \begin{array}{r} 24.63 \\ \times 4.3 \\ \hline \end{array}$$

$$7. \begin{array}{r} 32.71 \\ \times 6.3 \\ \hline \end{array}$$

$$8. \begin{array}{r} 56.24 \\ \times 6.7 \\ \hline \end{array}$$

$$9. \begin{array}{r} 62.67 \\ \times 6.8 \\ \hline \end{array}$$

$$10. \begin{array}{r} 9.78 \\ \times 4.8 \\ \hline \end{array}$$

**Lesson 27: Multiply decimals mentally by 10, 100, and 1, 000.
(Competency D. 5)**

Exercise Set A

Direction: Mentally solve for the products of the following equations.

1. 2.093×10
2. 3.1904×100
3. $38.04 \times 1,000$
4. 15.03×10
5. 35.382×100
6. $20.187 \times 1,000$
7. 200.6×10
8. 914.2×100
9. $870.006 \times 1,000$
10. One sheet of pad paper is about 0.0097 centimeter thick. How thick is a stack of paper with 10 sheets? 100? 1, 000 sheets?

Exercise Set B

Direction: Mentally solve for the products of the following equations.

1. 3.039×10
2. 1.3904×100
3. $38.40 \times 1,000$
4. 51.30×10
5. 53.328×100
6. $10.781 \times 1,000$
7. 200.8×10
8. 194.20×100
9. $708.600 \times 1,000$
10. One sheet of paper in a telephone book is 0.0068 cm thick. How thick is the paper in a book with 10 sheets? 100 sheets? 1, 000 sheets?

**Lesson 28: Multiplying decimals mentally by 0.1, 0.01, 0.001.
(Competency D.6)**

Exercise Set A

Directions: Mentally solve for the products of the following equations.

$$\begin{array}{r} 0.2 \\ 1. \times 0.1 \end{array}$$

$$\begin{array}{r} 0.458 \\ 2. \times 0.1 \end{array}$$

$$\begin{array}{r} 0.963 \\ 3. \times 0.01 \end{array}$$

$$\begin{array}{r} 0.7432 \\ 4. \times 0.01 \end{array}$$

$$\begin{array}{r} 2.74 \\ 5. \times 0.01 \end{array}$$

$$\begin{array}{r} 6.89 \\ 6. \times .01 \end{array}$$

$$\begin{array}{r} 72.9 \\ 7. \times .001 \end{array}$$

$$\begin{array}{r} 89.49 \\ 8. \times .001 \end{array}$$

$$\begin{array}{r} 741.856 \\ 9. \times .001 \end{array}$$

$$\begin{array}{r} 953.0493 \\ 10. \times .001 \end{array}$$

Exercise Set B

Directions: Complete the table by multiplying the following equations mentally.

	0.1	0.01	0.001
1. 0.895			
2. 48.6			
3. 9.28			
4. 61.742			

Lesson 29: Apply the properties of multiplication to compute the products mentally.
(Competency D. 7)

Exercise Set A

Direction: Solve for the product of each equation and identify the property that was applied in each equation.

PRODUCT

PROPERTY

1. 1×7
2. 5×0
3. $7 \times 4 = 4 \times 7$
4. $5 \times 12 = 12 \times 5$
5. $(7 \times 4) \times 5 = 7 \times (4 \times 5)$
6. $5 \times (6 + 7) = 5 \times 6 + 5 \times 7$
7. $6 \times (7 + 9) = 6 \times 7 + 6 \times 9$
8. $(8 \times 4) + (8 \times 6) = 8 \times (4 + 6)$
9. $8 \times (2 + 5) = (8 \times 2) + (8 \times 5)$
10. Use one of the properties of multiplication to find the product mentally, and then fill in the blank with your answer.
 $(9 \times 4) + (9 \times 6) = 9 \times (\underline{\quad} + \underline{\quad}) =$

Exercise Set B

Direction: Solve for the product of each equation and identify the property that was applied in each equation.

PRODUCT

PROPERTY

1. 1×3
2. 4×0
3. $8 \times 2 = 2 \times 8$
4. $5 \times 10 = 10 \times 5$
5. $(4 \times 3) \times 2 = 4 \times (3 \times 2)$
6. $6 \times (7 + 8) = 6 \times 7 + 6 \times 8$
7. $6 \times (3 + 4) = 6 \times 3 + 6 \times 4$
8. $9 \times 4 + 9 \times 6 = 9 \times (4 + 6)$
9. $5 \times (2 + 5) = 5 \times 2 + 5 \times 5$
10. Use one of the properties of multiplication to find the product mentally, then fill in the blanks with the correct answer.
 $(6 \times 4) + (6 \times 7) = 6 \times (\underline{\quad} + \underline{\quad}) =$

**Lesson 30: Writing an equation to solve word problem.
(Competency D. 8.1)**

Exercise Set A

Directions: Read the problems below, analyze and write an equation for each item.
Write your answers on your notebook.

1. Joy bought 5 paper bags, each containing 4.5 kg of guavas. How many kg of guavas are there?
2. Pat bought a dozen of green mangoes. If the price of each is Php12.75, how much will she pay?
3. Mrs. Smith bought a residential lot with an area of 175.80 m^2 at Php750.00 per square meter. How much did she pay for the lot?
4. A sack of rice weighs 49.5 kgs. What is the total weight of 8 sacks if they have the same weight?
5. A ganta of rice cost P56.75. How much will I pay for 8.5 gantas?
6. My mother has 5.25 m of lace. She used 0.6 m of the lace for my blouse. How many meters of lace did she use?
7. A fisherman caught three big fish weighing 1.75 kg. each, what is the total weight of the three fishes?
8. The bus fare going to the school forestry is Php9.50 per person. If there are 45 passengers, how much money will the driver receive?
9. A farmer has 16.5 hectares of land. Eight tenth of the land is a rice field. How many hectares is the rice field?
10. Mrs. Palmares paid Php96.58 for one kilogram of chicken. How much did she pay for 10 kgs of chicken?

Lesson 30: Writing an equation to solve word problem.
(Competency D. 8.1)

Exercise Set B

Directions: Read the problems below, analyze and write an equation for each item.
Write your answers on your notebook.

1. Madel bought 6 paper bags, each containing 5.6 kg of guavas. How many kg of guavas are there?
2. Rene bought two dozens of green mangoes. If the price of each is Php12.90, how much will she pay?
3. Mrs. Ramos bought a residential lot with an area of 180.75 m^2 at Php900.00 per square meter. How much did she pay for the lot?
4. A sack of rice weighs 49.5 kg. What is the total weight of 9 sacks if they have the same weight?
5. A ganta of rice costs Php58.90. How much will I pay for 10.5 gantas?
6. My mother has 8.25 m of lace. She used 2.6 m of the lace for my blouse. How many metres of lace did she use?
7. A fisherman caught 6 big fish weighing 12.4 kgs. Each, what is the total weight of the fishes?
8. The bus fare going to the school forestry is P12.50 per person. If there are 48 passengers, how much money will the driver receive?
9. A farmer has 18.5 hectares of land. Nine tenth of the land is a rice field. How many hectares is the rice field?
10. Mrs. Arroyo paid Php105.50 for one kilogram of chicken. How much did she pay for 12 kgs of chicken?

**Lesson 31: Solve word problems involving multiplication of decimals including money.
(Competency D. 8.2)**

Exercise Set A

Direction: Read the problems below, analyze and solve each problem item.
Write your answers on your notebook.

1. At P 5.15 per kwh, how much will it cost to run 0.25 kw vacuum cleaner for 4.5 hours?
2. Dick works 40 hours a week. If his hourly rate is P86.75, how much is he paid in a week?
3. If one meter of cloth costs P72.95, how much would 6.5 meters cost?
4. Mang Randy a balut vendor bought 120 new duck eggs at P3.85 each. How much did he pay for all the eggs?
5. A can of powdered milk has a weight of 0.345 kilogram. What is the weight of 12 cans of milk?
6. Mrs. Asuncion bought a residential lot with an area of 180.75 m at P650.00 per square meter. How much did she pay for the lot?
7. The rental for a van is P3, 500 a day. What will it cost you to rent it in 6.5 days?
8. A carpet costs P175.85 per square meter. If you want to buy 8.5 square metres of carpet, how much will you pay?
9. What is the area of a rectangle with a length of 9.35 cm and a width of 6.50 cm?
10. Marcos works 40 hours a week. If his hourly rate is P38.25, how much is he paid a week?

Lesson 31: Solve word problems involving multiplication of decimals including money.
(Competency D. 8.2)

Exercise Set B

Direction: Read the problems below, analyze and solve each problem item.
Write your answers on your notebook.

1. In a school, 0.45 of the students are girls. If there are 6400 students, how many are girls?
2. Rubi uses 0.80 m of cloth to make a pillowcase. How many metres of cloth will she use to make 5.5 dozen of pillowcases?
3. Lady's dog is sick. The veterinarian told her to give her dog 1.6 mg. of medicine for every kilogram of weight. If the dog weighs 15.5 kg, how much medicine does Lady have to give?
4. The weight of a man on Earth is 65.5 kg. What would his weight be on the moon if his weight on the moon would be 0.167 times his weight on Earth?
5. A sheet of paper in a Math book is 0.0065 cm thick. How thick is the paper in a book with 914 sheets?
6. Cindy runs 4.8 km every morning. How many kilometres does she run in a week?
7. What is the area of a rectangle with a length of 9.5 cm and a width 6.45 cm?
8. If gasoline costs P49.70, how much does 10.5 litres cost?
9. John makes monthly payments of P5, 775.50 on his car. How much will he pay in one year?
10. Romy makes monthly payments of P7, 650.25 on his car how much did he get his car if he has to finish it in 7 years?

**Lesson 32: Solving 1 to 3 step word problems involving addition; subtraction and multiplication of decimals including money.
(Competency D. 8.3)**

Exercise Set A

Direction: Read, analyze and solve the following problems below.
Write your answers in your notebook.

1. Raul helps his father feed the chicken in their poultry farm. For the daily feeding ratio, he gives 10.75 kg of laying mash and 15.75 kg of growing mash to the broilers and layers. How many kg does he use in one week.
2. Joy wanted to make 6 garden plots. What is the area of the whole plot if one plot is 3.67 m long and 2.54 m wide?
3. Nelson earns P20.25 for selling newspaper and P8.00 for fetching water. If he earns this amount everyday, how much would he earn in 5 days?
4. Mary bought 2 dozen of eggs at P47.80 per dozen and a kg of meat for P120.00. How much did she pay for the eggs and meat?
5. Jane practices her piano lesson for 2.75 hours in the morning and 2.25 hours in the afternoon. How many hours does she spend practicing in 5 days?
6. Lory brought to the market 35 heads of chicken from her poultry yard. She sold 5 heads at P60.00 each, 15 heads at P65.00 each and the rest for P75.00 each. How much did she receive?
7. Danny and Oscar helped their father prepare their rice field for planting. Each day, Danny worked for 3.15 hours while Oscar worked for 2.35 hours. Find the total number of hours the two boys worked in 6 days.
8. A farm lot is 45.85 m long and 25.5 m wide. How much will Mr. Yarra pay for the entire lot if one square meter costs P330.50?
9. Helen had a P500 bill. She paid for 2 t-shirts which altogether costs P199.95 and 3 handkerchiefs at P45.50 per piece. How much change did she receive?
10. Luis had P3, 137.50 deposited in the bank. He withdrew P850 to buy a pair of shoes. Two days after, he deposited P1, 150. How much was his total deposit?

Lesson 32: Solving 1 to 3 step word problems involving addition; subtraction and multiplication of decimals including money.
(Competency D. 8.3)

Exercise Set B

Direction: Read, analyze and solve the following problems below.
Write your answers in your notebook.

1. Ben helps his father feed the chicken in their poultry farm. For the daily \feeding ratio, he gives 12.75 kg of laying mash and 16.5 kg of growing mash to the broilers and layers. How many kg does he use in one week.
2. Jean wanted to make 6 garden plots. What is the total area of the six plots if each plot is 3.67 m long and 3.74 m wide?
3. Nelson earns Php30.75 for selling newspaper and Php15.00 for fetching water. If he earns this amount everyday, how much would he earn in 6 days?
4. Mae bought 3 dozen of eggs at Php48.50 per dozen and a kilogram of meat for Php130.00. How much did she pay for the eggs and meat?
5. Jill practices her piano lesson for 3.2 hours in the morning and 2.75 hours in the afternoon. How many hours does she spend practicing in 6 days?
6. Rhea brought to the market 46 heads of chicken from her poultry yard. She sold 5 heads at P65.00 each, 16 heads at P68.00 each and the rest for P76.00 each. How much did she receive?
7. Dan and Orlan helped their father prepare their rice field for planting. Each day, Dan worked 3.6 hours while Orlan worked 3.2 hours. Find the total number of hours the two boys worked in 6 days.
8. A farm lot is 46.75 m long and 25.8 m wide. How much will Mr. Ramos pay for the entire lot if one square meter costs P375.75?
9. Nelia had a P1000 bill. She paid for 2 blouses which altogether costs P575.00 and 3 handkerchiefs at P75.75 per piece. How much change did she receive?
10. Paul had P5275.00 deposited in the bank. He withdrew P1200 to buy a pair of shoes. Two days after, he deposited P3400. How much was his total deposit?

Lesson 33: Describe the answers in a complete sentence with proper labels / units.
(Competency D. 8.4)

Exercise Set A

Direction: Analyze and solve the following word problems. Label your answers properly. Write your answers in your notebook.

1. Mrs. Gomez bought 1.5 kg of beef at P180 per kilo. How much did she pay?
2. Dory bought 3.5 meters of curtain material at P65 per meter. How much did she pay?
3. Each notebook in a bookstore costs P25.25. How much will you pay if you buy 15 notebooks?
4. Rolly saved P40.50 each day for 15 days to buy his mother a birthday present. How much money will he save?
5. Cleaning a clogged drainage, each of the 5 members of the team was able to gather 10.3 kg of dirt. How many kg of dirt did the team gather?
6. For helping in her store every Sunday, Mrs. Santos gives me P150 a day. If I help her for 5 Sundays. How much will she pay me?
7. Benny bought 4 books at P215.15 each. How much change did he get from his P1,000 peso bill?
8. Donna is given a P300 allowance a week. Her expenses include P130.25 for snacks and P30.50 for transportation. How much does she save in a week?
9. How much will I pay for 5 kg of sugar at P32.25 per kg, 6 cans of milk at 35.15 per can and 9 cans of sardines at P9.75 per can?
10. Manny bought 8 mango seedlings at P75.25 each and 4 duhat seedlings at P40.50 each. How much change will he get from his 8 pieces of Php100 bills?

**Lesson 33: Describe the answers in a complete sentence with proper labels / units.
(Competency D. 8.4)**

Exercise Set B

Directions: Analyze and solve the following word problems. Label your answers properly. Write your answers in your notebook.

1. Mrs. Tan bought 1.8 kg of beef at P180 per kilo. How much did she pay?
2. Dory bought 4.5 meters of curtain material at P65 per meter. How much did she pay?
3. Each notebook in a bookstore costs P25.25. How much will you pay if you buy 25 notebooks?
4. Reynan saved P50.50 each day for 12 days to buy his mother a birthday present. How much money will he save?
5. Cleaning a clogged drainage, each of the 7 members of the team was able to gather 12.5 kg of dirt. How many kg of dirt did the team gather?
6. For helping in her store every Sunday, Mrs. Santos gives me P170 a day. If I help her for 7 Sundays. How much will she pay me?
7. Ben bought 7 books at P220.10 each. How much change did he get from his P2,000 peso bill?
8. Dona is given a P500 allowance a week. Her expenses include P180.50 for snacks and P160.70 for transportation. How much does she save in a week?
9. How much will I pay for 8 kg of sugar at P35.15 per kg, 6 cans of milk at 32.75 per can and 11 cans of sardines at P8.50 per can?
10. Manoy bought 10 mango seedlings at P80.10 each and 6 duhat seedlings at P39.50 each. How much change will he get from his 12 pieces of P100 bills?

**Lesson 34: Estimating quotient of whole numbers and decimals.
(Competency E. 1)**

Exercise Set A

Directions: Estimate the quotient then round off the divisor to the nearest whole and estimate the quotient of the following equations.

1.) $2.2 \overline{)261}$

2.) $1.6 \overline{)261}$

3.) $1.8 \overline{)469}$

4.) $3.2 \overline{)639}$

5.) $3.8 \overline{)976}$

6.) $3.7 \overline{)968}$

7.) $2.9 \overline{)4587}$

8.) $21.6 \overline{)7654}$

9.) $30.8 \overline{)8895}$

10) $42.6 \overline{)79381}$

Exercise Set B

Directions: Estimate the quotient then round off the divisor to the nearest whole and estimate the quotient of the following equations.

1. $61.25 \overline{)4408}$

2. $46.38 \overline{)5689}$

3. $52.51 \overline{)6874}$

4. $43.82 \overline{)7898}$

5. $56.31 \overline{)60938}$

6. $26.75 \overline{)31486}$

7. $32.65 \overline{)42684}$

8. $62.15 \overline{)93210}$

9. $72.18 \overline{)245368}$

10. $81.48 \overline{)368912}$

**Lesson 35: Divide 2-5 digit whole numbers by 1-2 digit divisor.
(Competency E. 2.1)**

Exercise Set A

Directions: Solve for the quotient of the following equations.

1. $0.4 \overline{)35}$

2. $0.2 \overline{)82}$

3. $0.5 \overline{)75}$

4. $0.5 \overline{)385}$

5. $0.8 \overline{)834}$

6. $0.12 \overline{)67884}$

7. $0.6 \overline{)9753}$

8. $0.4 \overline{)8426}$

9. $0.2 \overline{)9532}$

10. $0.24 \overline{)85242}$

Exercise Set B

Directions: Solve for the quotient of the following equations.

1. $0.8 \overline{)416}$

2. $0.6 \overline{)243}$

3. $0.8 \overline{)484}$

4. $0.85 \overline{)357}$

5. $0.27 \overline{)108}$

6. $0.94 \overline{)752}$

7. $0.68 \overline{)306}$

8. $0.78 \overline{)3588}$

9. $0.34 \overline{)2108}$

10. $0.60 \overline{)34200}$

Lesson 36: Recognizing and differentiating between terminating and repeating non-terminating decimal quotients.
(Competency E. 2.2.1)

Exercise Set A

Directions: Solve then identify if the quotient is a terminating or a repeating / non – terminating decimal.

1. $1 \div 12 =$

2. $2 \div 9 =$

3. $3 \div 17 =$

4. $5 \div 8 =$

5. $3 \div 14 =$

6. $3 \div 80 =$

7. $3 \div 25 =$

8. $6 \div 9 =$

9. $4 \div 15 =$

10. $5 \div 25 =$

Exercise Set B

Directions: Solve then identify if the quotient is a terminating or a repeating / non – terminating decimal.

1. $6 \div 9 =$

2. $10 \div 12 =$

3. $30 \div 60 =$

4. $50 \div 75 =$

5. $72 \div 92 =$

6. $5 \div 20 =$

7. $15 \div 30 =$

8. $150 \div 200 =$

9. $30 \div 75 =$

10. $42 \div 65 =$

**Lesson 37: Dividing whole numbers by decimals and mixed decimals.
(Competency E. 2.4)**

Exercise Set A

Directions: Solve for the quotients of the equations below.

1. $45 \div 1.5 =$

2. $63 \div 2.1 =$

3. $72 \div .12 =$

4. $104 \div .22 =$

5. $382 \div 3.1 =$

6. $37 \div 9.25 =$

7. $768 \div .8 =$

8. $250 \div .35 =$

9. $620 \div 1.24 =$

10. $323 \div .68 =$

Exercise Set B

Directions: Solve for the quotients of the equations below.

1. $448 \div 5.6 =$

2. $357 \div .42 =$

3. $255 \div .34 =$

4. $1,517 \div .37 =$

5. $606 \div .012 =$

6. $148 \div 3.7 =$

7. $432 \div .008 =$

8. $2,460 \div .06 =$

9. $146 \div .12 =$

10. $29,340 \div .18 =$

Lesson 38: Divide mixed decimals by mixed decimals.
(Competency E. 2.5)

Exercise Set A

Directions: Solve for the quotient and check your answers.

1. $2.7 \overline{)874.8}$

2. $3.8 \overline{)1554.2}$

3. $1.19 \overline{)5.9738}$

4. $8.4 \overline{)724.92}$

5. $2.03 \overline{)181.076}$

6. $3.62 \overline{)17.014}$

7. $9.6 \overline{)176.64}$

8. $9.6 \overline{)314.88}$

9. $7.03 \overline{)382.432}$

10. $7.8 \overline{)308.4588}$

Exercise Set B

Directions: Solve for the quotient and check your answers.

1. $2.6 \overline{)10.14}$

2. $1.5 \overline{)1.332}$

3. $1.9 \overline{)12.35}$

4. $7.3 \overline{)332.38}$

5. $3.6 \overline{)73.8}$

6. $4.9 \overline{)313.11}$

7. $2.6 \overline{)13.52}$

8. $1.4 \overline{)37.24}$

9. $2.5 \overline{)35.14}$

10. $12.5 \overline{)156.25}$

Lesson 39: Dividing decimals by 10, 100, and 1,000 mentally.
(Competency E. 3)

Exercise Set A

Directions: Solve the following equations mentally.

1. $3.6 \div 10 =$

2. $4.9 \div 10 =$

3. $36.7 \div 10 =$

4. $48.5 \div 100 =$

5. $93.5 \div 100 =$

6. $439.2 \div 100 =$

7. $74.3 \div 1,000 =$

8. $208.5 \div 1000 =$

9. $38.42 \div 1000 =$

10. $946.45 \div 1000 =$

Exercise Set B

Directions: Solve the equation mentally and give the answers as fast as you can.

1. $74.5 \div 10 =$

2. $48.3 \div 1000 =$

3. $97.37 \div 10 =$

4. $193.83 \div 100 =$

5. $62.08 \div 1000 =$

6. $87.43 \div 100 =$

7. $543.7 \div 10 =$

8. $3,617.5 \div 100 =$

9. $297.4 \div 100 =$

10. $63.81 \div 1000 =$

Lesson 40: Divide decimals by 0.1; 0.01; 0.001 mentally.
(Competency E. 4)

Exercise Set A

Directions: Solve for the quotients mentally.

1. $14.7 \div 0.1 =$

2. $97.085 \div 0.1 =$

3. $8.5 \div 0.1 =$

4. $6.472 \div 0.01 =$

5. $56.8 \div 0.01 =$

6. $9.072 \div 0.01 =$

7. $0.725 \div 0.01 =$

8. $517.83 \div 0.01 =$

9. $2.09561 \div 0.001 =$

10. $57.28 \div 0.001 =$

Exercise Set B

Directions: Solve for the quotients mentally.

1. $9.077 \div 0.1 =$

2. $0.7124 \div 0.1 =$

3. $85.32 \div 0.01 =$

4. $16.49 \div 0.01 =$

5. $4.32 \div 0.01 =$

6. $21.029 \div 0.01 =$

7. $9.3738 \div 0.001 =$

8. $49.67 \div 0.001 =$

9. $418.394 \div 0.01 =$

10. $57.0967 \div 0.001 =$

Lesson 41: Writing an equation to solve problems.
(Competency E. 5.1)

Exercise Set A

Direction: Read the problems carefully and write an equation for each problem.
Write your answers in your notebook.

1. Mrs. Edang bought uniform for her 3 daughters all costing P847.95. How much did each uniform cost?
2. A box containing 24 bars of soap costs P496.00. How much is the cost of one bar of soap?
3. A bag of candy containing 100 pieces costs P25.00. How much is the cost of one piece of candy?
4. Mother bought ripe mangoes. She paid the vendor P35.00 for 5 mangoes. How much is the cost of each ripe mango?
5. A carpenter earns P450 for 6 days worth of work. How much does he earn daily?
6. Leni bought 10 pieces of handkerchiefs at P85.00. How much is the cost of one handkerchief?
7. Several civic organizations donated a total of 5412.6 kg of rice to be equally divided among flood victims for 6 Barangays. How many kg of rice will each Barangay receive?
8. Niko will equally divide P742.60 among his 4 nieces. How much will each niece receive?
9. If 4.5 hectares yield 811.125 cavans of palay, what is the average yield per hectare?
10. A fisherman caught 15.45 kg of fish. He distributed the fish equally among his 3 relatives. How many kilograms did each relative get?

Lesson 41: Writing an equation to solve problems.
(Competency E. 5.1)

Exercise Set B

Direction: Read the problems carefully and write an equation for each problem.
Write your answers in your notebook.

1. Mrs. Hernandez bought uniform for her 4 daughters all costing P1, 129.75. How much did each uniform cost?
2. A box of soap containing 28 bars costs P576.00. How much is the cost of one bar of soap?
3. A bag of candy containing 100 pieces costs P75.00. How much is the cost of one piece of candy?
4. Mother bought ripe mangoes. She paid the vendor P65.00 for 6 mangoes. How much is the cost of each ripe mango?
5. A carpenter earns P560 for 6 days worth of work. How much does he earn daily?
6. Leni bought 12 pieces of handkerchiefs at P136.00. How much is the cost of one handkerchief?
7. Several civic organizations donated a total of 5786.7 kg of rice to be equally divided among flood victims of 6 Barangays. How many kg of rice will each Barangay receive?
8. Kim will equally divide P968.80 among his 4 nieces. How much will each niece receive?
9. If 6.5 hectares yield 874.80 cavans of palay, what is the average yield per hectare?
10. A fisherman caught 18.65 kg of fish. He distributed the fish equally among his 4 relatives. How many kilograms did each relative get?

**Lesson 42: Solve word problems involving division of decimals including money.
(Competency E. 5.2)**

Exercise Set A

Direction: Read the word problems, analyze and solve each. Write your answers in your notebook.

1. Joni saves P105.35 a week. How long will it take him to save P1264.20?
2. Rodolfo plans to go to the province for a vacation. He wanted to buy presents for his nephews worth P289.45 each. He allotted P1, 157.80. How many nephews does he have in the province?
3. Tina and Rose went to the market to buy plates, which cost P54.50 each. If mother gave them P700. How many plates can they buy from it?
4. Christian is a businessman. Every first week of December he deposits P51,028.00 for the Christmas bonus of his employees. Each employee receives P6, 378.50. How many employees are there?
5. A fisherman caught 20.45 kg of fish. He distributed his catch equally among his 5 relatives. How many kg did each relative get?
6. Mang Tony has 9.5 hectares of land. He wants to divide it equally into 1.9 hectares for each of his sons. How many sons does Mang Tony have?
7. Roxanne has P38.50 left in her purse. She has to buy ribbons for the gift. Each meter of ribbon costs P5.50. How many metres of ribbon can she buy?
8. Dina, Anne and Daisy bought materials for their project worth P552.9. The girls divide the amount equally among themselves. How much is the share of each?
9. Troy is planning to buy a new DVD player worth P4595.25. He tries to save P306.35 a week from his salary. How many weeks will it take for him to save the amount enough to buy the DVD player?
10. The Rotary Club of Pampanga donated a total of 5628.5 kg of rice to the flood victims of five barangays. If this is shared equally how many kilograms of rice did each Barangay receive?

**Lesson 42: Solve word problems involving division of decimals including money.
(Competency E. 5.2)**

Exercise Set B

Directions: Read the word problems, analyze and solve each. Write your answers in your notebook.

1. If the annual income of an employee is P185945.40, what is his monthly income?
2. A laborer works 7.5 hours and earns P350.50. How much is his hourly rate?
3. A 12-meter fabric is worth P1426.20. What would be the cost of one meter of that fabric?
4. Nora is paid P1.15 a piece for making a potholder. How many potholders did she make if she received P1362.50?
5. A hiker walked 7.9 kilometers. If his average speed is 4.6 kilometers per hour. How many hours did he hike?
6. Mother paid P195.30 for 6.2 kgs of carrots. How much did a kilogram of carrots cost?
7. Audrey sold 122.5 kg of scrap fabrics. If each pack of scrap fabrics weighs about 1.75 kg, how many packs did Audrey sell?
8. For a birthday party, Mother budgeted P1, 041.25 for ice cream. If one liter of ice cream costs P148.75, how many liters can Mother buy?
9. Mario earned P1, 369.65 after working for 69 hours in a fast food restaurant. How much does he earn per hour of work?
10. The area of a quadrangle is 66.708 square metres. If the width is 6.12 meters, find the length of the quadrangle.

**Lesson 43: Describe the answer in a complete sentence with proper label / unit.
(Competency E. 5.4)**

Exercise Set A

Direction: Write the equation and solve the following word problem. Label your answers properly. Write your answers in your notebook.

1. One candy costs P0.85, how many can you buy if you have P20.40?
2. Lina made 3.5 litres of preserves. She wants to put them in jars that hold 0.25 liters each. How many jars does she need?
3. I have 12.45 metres of ribbon and wants to cut it into pieces for 0.35 each metre long. How many pieces can I cut from my ribbon?
4. Jose received P787.20 for one week's work. How many hours did he work if his rate is P20.50 per hour?
5. Peter worked for 32.5 hours and earned P698.75. How much did he earn each hour?
6. Noel drove 324 km in 4.5 hours. What was his average speed for the journey?
7. A store has 2.35 cm of labeling tape and wishes to make labels that are 0.05 cm long. How many labels can be made?
8. Five friends took a taxi to see a movie. They paid P122 for their fare. How much did each pay if the fare was shared equally?
9. In a given contest, Marie got a total of 75.5 points in 5 rounds. What was her average points per round?
10. Linda can finish 150 toy baskets in 2.5 days. How many toy baskets can she finish a day?

Lesson 43: Describe the answer in a complete sentence with proper label / unit.
(Competency E. 5.4)

Exercise Set B

Direction: Write the equation and solve the following word problem. Label your answers properly. Write your answers in your notebook.

1. A 3.72-meter rod is divided into 12 equal pieces. How long is each piece?
2. Linda made 8.5 litres of preserves. She wants to put them in jars that hold 0.25 liters each. How many jars does she need?
3. Joy had 42.45 meters of ribbon and want to cut it into pieces for 0.25 each meter long. How many pieces can she cut from it?
4. Josie received P922.50 in one week for work done. How many hours did she work if her rate is P20.50 per hour?
5. Pedro worked for 35.5 hours and earned P798.75. How much did he earn for each hour?
6. Noli drove 345 km in 7.5 hours. What was his average speed for the journey?
7. A store has 8.25 cm of labeling tape and wishes to make labels that are 0.15 cm long. How many labels can be made?
8. Six friends took a taxi to see a movie. They paid P151.50 for their fare. How much did each pay if the fare was shared equally?
9. In a given contest, Salve got a total of 85.5 points in 5 rounds. What was her average points per round?
10. Loida can finish 250 toy baskets in 5 days. How many toy baskets can she finish a day?

**Lesson 44: Generalizing when a number is divisible by another number (divisibility rules).
(Competency F. 1.1)**

Exercise Set A

Directions: Tell whether the statement is true or false and then justify your answer.

Ex. 24 is divisible by both 3 and 2. True

*Justification: $24 \div 3 = 6$
 $24 \div 2 = 12$*

1. 12 is divisible by 2.
2. 355 is divisible by 5.
3. 341 is divisible by 2.
4. If a number ends in 0 or 5, it is divisible by 5 and 10.
5. 24 is divisible by 8.

Directions: Write only two divisibility rules that apply to the given numbers.

6. 105
7. 204
8. 5, 260
9. 840
10. 4, 828

Exercise Set B

Directions: Tell whether the statement is true or false and then justify your answer.

Ex. 24 is divisible by both 3 and 2. True

*Justification: $24 \div 3 = 6$
 $24 \div 2 = 12$*

1. 18 is divisible by both 2 and 3.
2. 220 is divisible by both 5 and 10.
3. 375 is divisible by 2.
4. 881 is divisible by 3.
5. 1, 874 is divisible by 2.

Directions: Write only two divisibility rules that apply to the given numbers.

6. 280
7. 470
8. 3, 282
9. 52, 692
10. 738, 458

Lesson 45: Identify prime and composite numbers.
(Competency F. 1.2)

Exercise Set A

Directions: Write P if the number is prime and C if the number is composite.

- _____ 1. 5
- _____ 2. 10
- _____ 3. 12
- _____ 4. 35
- _____ 5. 71
- _____ 6. 87
- _____ 7. 90
- _____ 8. 118
- _____ 9. 130
- _____ 10. 250

Exercise Set B

Direction: Write P if the number is prime and C if the number is composite.

- _____ 1. 18
- _____ 2. 47
- _____ 3. 51
- _____ 4. 55
- _____ 5. 88
- _____ 6. 158
- _____ 7. 171
- _____ 8. 183
- _____ 9. 185
- _____ 10. 203

Lesson 46: Enumerating factors and multiples of given numbers.
(Competency F. 1.3)

Exercise Set A

Directions: List all the factors of the following numbers in the space provided.

1. $6 =$ _____, _____, _____, _____
2. $8 =$ _____, _____, _____, _____
3. $9 =$ _____, _____, _____
4. $10 =$ _____, _____, _____, _____
5. $12 =$ _____, _____, _____, _____, _____, _____

Directions: Write the next five multiples for each number.

6. $2 = 2, 4,$ _____, _____, _____, _____, _____
7. $3 = 3, 6,$ _____, _____, _____, _____, _____
8. $4 = 4, 8,$ _____, _____, _____, _____, _____
9. $5 = 5, 10,$ _____, _____, _____, _____, _____
10. $6 = 6, 12,$ _____, _____, _____, _____, _____

Exercise Set B

Direction: List all the factors of the following numbers in the space provided.

1. $14 =$ _____, _____, _____, _____
2. $15 =$ _____, _____, _____, _____
3. $16 =$ _____, _____, _____, _____, _____
4. $18 =$ _____, _____, _____, _____, _____, _____
5. $20 =$ _____, _____, _____, _____, _____, _____

Directions: Write the next 5 multiples for each number.

6. $8 = 8, 16,$ _____, _____, _____, _____, _____
7. $10 = 10, 20,$ _____, _____, _____, _____, _____
8. $12 = 12, 24,$ _____, _____, _____, _____, _____
9. $15 = 15, 30,$ _____, _____, _____, _____, _____
10. $20 = 20, 40,$ _____, _____, _____, _____, _____

**Lesson 47: Lists the prime factors of a given number.
(Competency F. 1.4)**

Exercise Set A

Directions: Write the prime factors of the following numbers using the 'Factor Tree' method.

1. 9

2. 12

3. 24

4. 35

5. 46

6. 60

7. 72

8. 78

9. 90

10. 150

Exercise Set B

Directions: Write the prime factors of the following numbers using the 'Factor Tree' method.

1. 10

2. 25

3. 27

4. 32

5. 48

6. 60

7. 83

8. 100

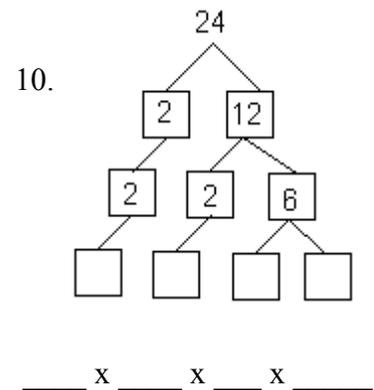
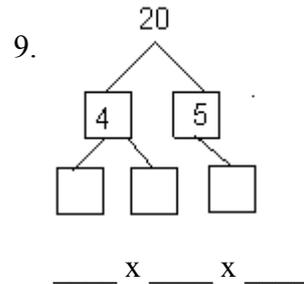
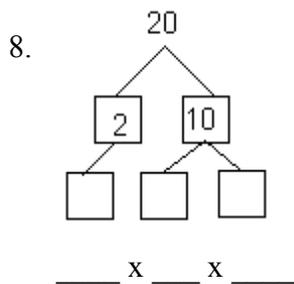
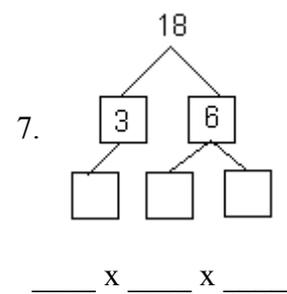
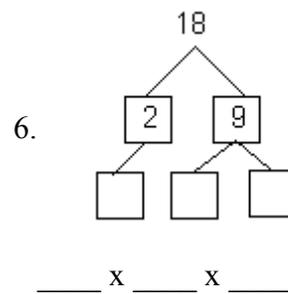
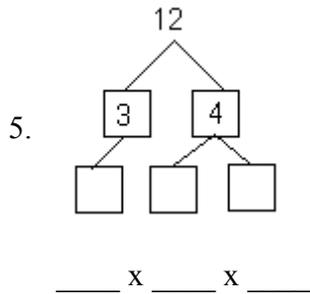
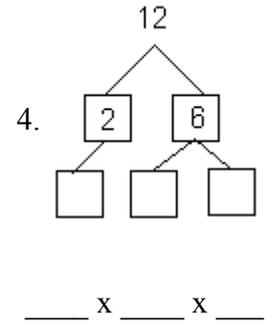
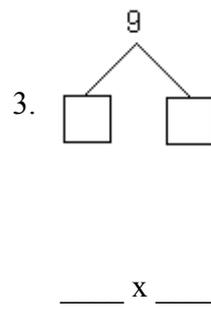
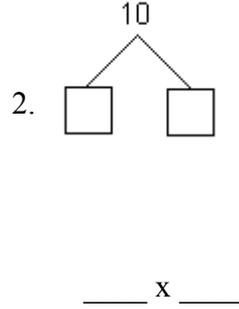
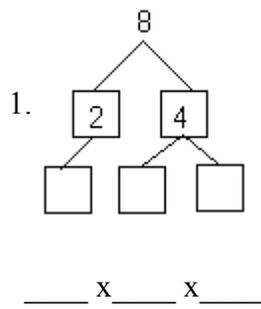
9. 220

10. 305

Lesson 48: Writing the prime factorization of a given number.
(Competency F. 1.5)

Exercise Set A

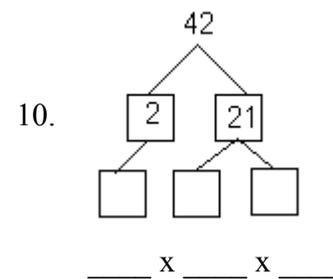
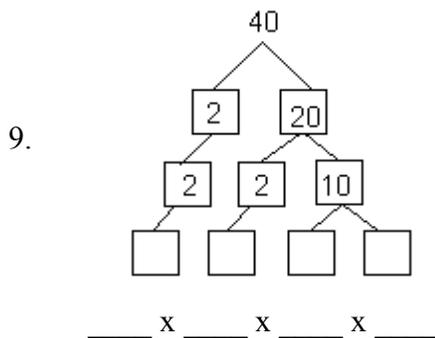
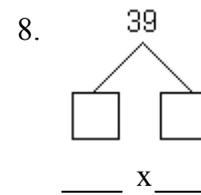
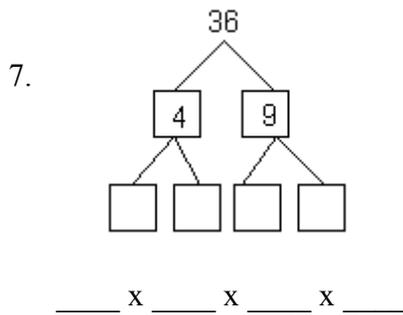
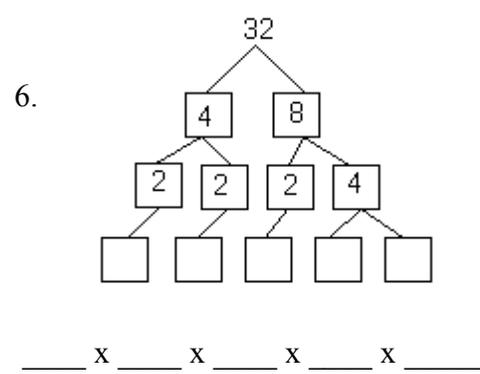
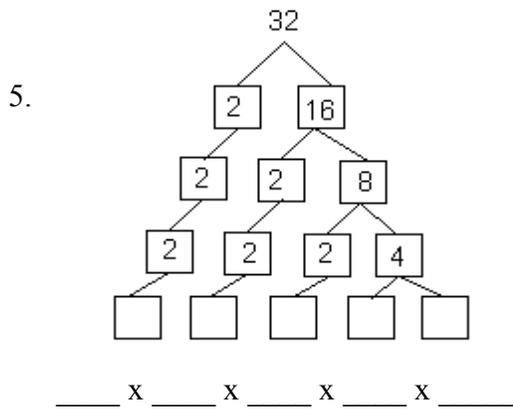
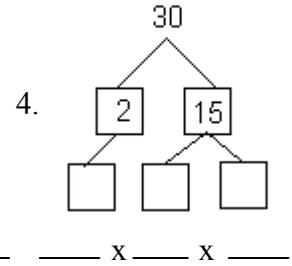
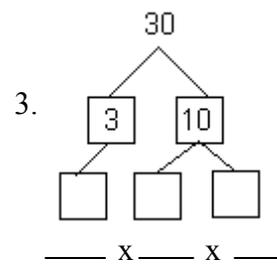
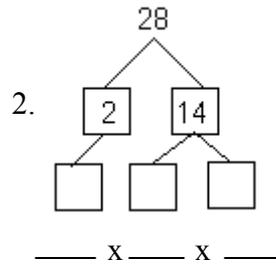
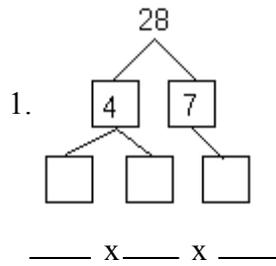
Direction: Write the prime factorization on the blanks provided.



Lesson 48: Writing the prime factorization of a given number.
(Competency F. 1.5)

Exercise Set B

Direction: Write the prime factorization on the blanks provided.



**Lesson 49: Determine the greatest common factor. (GCF) of 2 or more numbers.
(Competency F. 1.6)**

Exercise Set A

Direction: Find the GCF of the following pair of numbers using 'Intersection of Sets' or 'Prime Factorization' method.

1. 6 and 9
2. 5 and 10
3. 6 and 12
4. 24 and 32
5. 16 and 40
6. 18 and 16
7. 45 and 15
8. 30 and 20
9. 96 and 48
10. 24, 18 and 36

Exercise Set B

Direction: Find the GCF of the following pair of numbers using 'Intersection of Sets' or 'Prime Factorization' method.

1. 2 and 6
2. 5 and 20
3. 8 and 12
4. 4 and 32
5. 50 and 40
6. 20 and 45
7. 18 and 27
8. 12, 16, and 18
9. 30, 35, and 25
10. 50, 75, and 100

Lesson 50: Determining the least common multiple (LCM) of 2 or more numbers.
(Competency F. 1.7)

Exercise Set A

Directions: Find the LCM of the following numbers by listing the multiples.

- 3 = _____
6 = _____
LCM = _____
- 6 = _____
8 = _____
LCM = _____
- 9 = _____
4 = _____
LCM = _____
- 10 = _____
15 = _____
LCM = _____
- 6 = _____
24 = _____
LCM = _____
- 15 = _____
9 = _____
LCM = _____
- 8 = _____
12 = _____
LCM = _____
- 10 = _____
12 = _____
LCM = _____
- 4 = _____
12 = _____
16 = _____
LCM = _____
- 20 = _____
40 = _____
60 = _____
LCM = _____

Exercise Set B

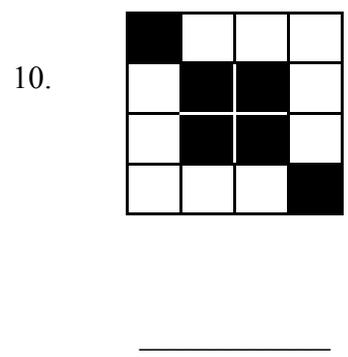
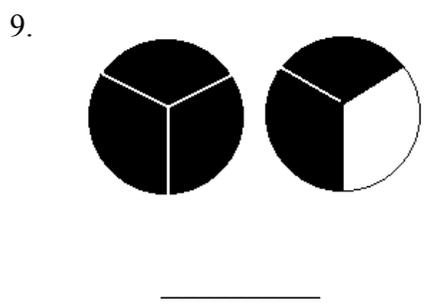
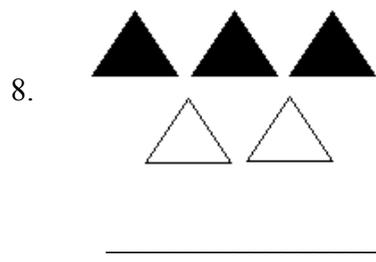
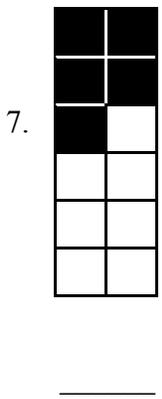
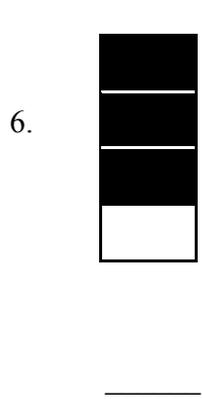
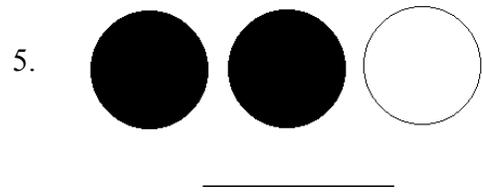
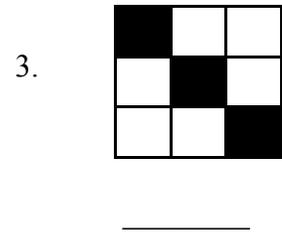
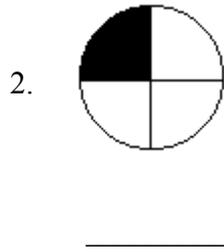
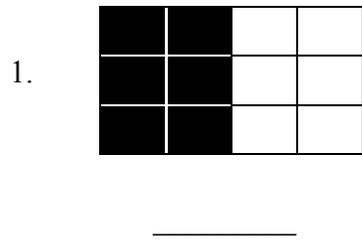
Directions: Find the LCM of the following numbers using the listing method.

- 22 = _____
12 = _____
LCM = _____
- 42 = _____
28 = _____
LCM = _____
- 36 = _____
24 = _____
LCM = _____
- 24 = _____
18 = _____
LCM = _____
- 9 = _____
36 = _____
45 = _____
LCM = _____
- 12 = _____
24 = _____
48 = _____
LCM = _____
- 15 = _____
45 = _____
LCM = _____
- 14 = _____
18 = _____
LCM = _____
- 16 = _____
12 = _____
LCM = _____
- 20 = _____
50 = _____
LCM = _____

**Lesson 51: Write the fraction described involving regions and sets.
(Competency G.1)**

Exercise Set A

Direction: Write the fraction for the shaded parts of each model. Write your answer on the blank.

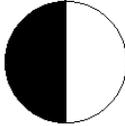


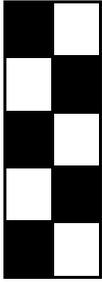
**Lesson 51: Write the fraction described involving regions and sets.
(Competency G.1)**

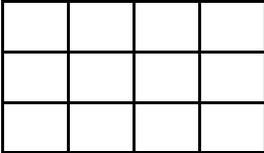
Exercise Set B

Direction: Write the fraction for the shaded parts of each model. Write your answer on the blank.

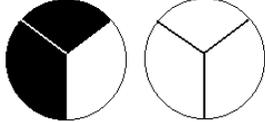
1.  _____

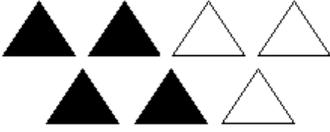
2.  _____

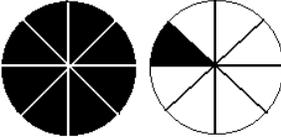
3.  _____

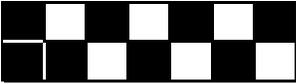
4.  _____

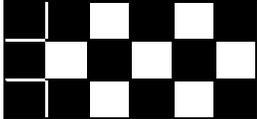
5.  _____

6.  _____

7.  _____

8.  _____

9.  _____

10.  _____

**Lesson 52: Renaming fractions as decimals and decimals to fractions.
(Competency G. 2)**

Exercise Set A

Directions: Change the following fractions to decimals.

1. $\frac{1}{4}$

2. $\frac{1}{2}$

3. $\frac{1}{5}$

4. $\frac{1}{3}$

5. $\frac{3}{8}$

Directions: Change the following decimals to fractions.

6. $0.6 =$ _____

7. $0.08 =$ _____

8. $0.58 =$ _____

9. $0.173 =$ _____

10. $0.006 =$ _____

Exercise Set B

Directions: Change the following fractions to decimals.

1. $\frac{25}{100}$

2. $\frac{6}{8}$

2. $\frac{14}{56}$

4. $\frac{12}{60}$

5. $\frac{4}{8}$

Directions: Change the following decimals to fractions.

6. $0.49 =$ _____

7. $0.055 =$ _____

8. $12.022 =$ _____

9. $6.08 =$ _____

10. $15.009 =$ _____

Lesson 53: Forms equivalent fractions.
(Competency G.3)

Exercise Set A

Direction: Solve for the missing term to make the pair of fractions equal.

1. $\frac{1}{2} = \frac{\quad}{4}$

2. $\frac{2}{6} = \frac{\quad}{18}$

3. $\frac{2}{\quad} = \frac{4}{6}$

4. $\frac{12}{16} = \frac{3}{\quad}$

5. $\frac{3}{7} = \frac{\quad}{35}$

6. $\frac{\quad}{6} = \frac{10}{12}$

7. $\frac{3}{\quad} = \frac{9}{27}$

8. $\frac{12}{16} = \frac{\quad}{8}$

9. $\frac{10}{12} = \frac{40}{\quad}$

Exercise Set B

Direction: Solve for the missing term to make the pair of fractions equal.

1. $\frac{1}{3} = \frac{\quad}{6}$

2. $\frac{2}{3} = \frac{18}{\quad}$

3. $\frac{4}{5} = \frac{2}{\quad}$

4. $\frac{3}{4} = \frac{\quad}{16}$

5. $\frac{12}{\quad} = \frac{2}{8}$

6. $\frac{\quad}{12} = \frac{3}{6}$

7. $\frac{4}{36} = \frac{\quad}{9}$

8. $\frac{5}{9} = \frac{25}{\quad}$

9. $\frac{40}{50} = \frac{4}{\quad}$

Directions: Complete the series.

$\frac{3}{9}, \frac{\quad}{\quad}, \frac{27}{81}, \frac{81}{243}, \frac{243}{729}$

Directions: Complete the series.

$\frac{1}{1}, \frac{4}{9}, \frac{4}{2}, \frac{3}{4}, \frac{6}{8}, \frac{\quad}{\quad}, \frac{6}{8}$

**Lesson 54: Solve for the missing term in a pair of equivalent fractions.
(Competency G.4)**

Exercise Set A

Directions: Solve for the missing term of the following equivalent fractions.

1. $\frac{1}{2} = \frac{\quad}{8}$

2. $\frac{2}{4} = \frac{4}{\quad}$

3. $\frac{\quad}{7} = \frac{2}{14}$

4. $\frac{3}{\quad} = \frac{6}{8}$

5. $\frac{2}{3} = \frac{\quad}{6}$

6. $\frac{12}{\quad} = \frac{3}{4}$

7. $\frac{\quad}{7} = \frac{15}{35}$

8. $\frac{5}{6} = \frac{10}{\quad}$

9. $\frac{6}{8} = \frac{\quad}{16}$

10. $\frac{2}{5} = \frac{8}{\quad}$

Exercise Set B

Directions: Solve for the missing term of the following equivalent fractions.

1. $\frac{\quad}{5} = \frac{20}{25}$

2. $\frac{9}{\quad} = \frac{3}{4}$

3. $\frac{1}{9} = \frac{\quad}{36}$

4. $\frac{2}{7} = \frac{\quad}{35}$

5. $\frac{6}{7} = \frac{18}{\quad}$

6. $\frac{15}{20} = \frac{30}{\quad}$

7. $\frac{18}{24} = \frac{\quad}{6}$

8. $\frac{12}{20} = \frac{\quad}{5}$

9. $\frac{6}{9} = \frac{24}{\quad}$

10. $\frac{\quad}{8} = \frac{30}{48}$

Lesson 55: Reduce fractions to lowest term.
(Competency G. 5)

Exercise Set A

Directions: Reduce the following fractions to the lowest terms.

1. $\frac{2}{4} =$

6. $\frac{10}{50} =$

2. $\frac{3}{6} =$

7. $\frac{12}{24} =$

3. $\frac{5}{15} =$

8. $\frac{35}{50} =$

4. $\frac{12}{20} =$

9. $\frac{75}{100} =$

5. $\frac{15}{20} =$

10. $\frac{21}{49} =$

Exercise Set B

Directions: Reduce the following fractions to the lowest terms.

1. $\frac{2}{6} =$

6. $\frac{60}{84} =$

2. $\frac{2}{10} =$

7. $\frac{21}{27} =$

3. $\frac{4}{12} =$

8. $\frac{54}{90} =$

4. $\frac{6}{15} =$

9. $\frac{64}{144} =$

5. $\frac{8}{12} =$

10. $\frac{102}{220} =$

Lesson 56: Changing mixed numbers to improper fractions and vice versa.
(Competency G. 6)

Exercise Set A

Directions: Rename the following mixed numbers to improper fractions.

1.) $1\frac{1}{2}$

2.) $2\frac{3}{4}$

3.) $1\frac{4}{5}$

4.) $3\frac{2}{5}$

5.) $2\frac{5}{6}$

Directions: Rename the following improper fractions to mixed numbers.

6.) $\frac{11}{2}$

7.) $\frac{13}{3}$

8.) $\frac{17}{5}$

9.) $\frac{21}{2}$

10.) $\frac{27}{4}$

Exercise Set B

Directions: Rename the following mixed numbers to improper fractions.

1.) $3\frac{1}{3}$

2.) $3\frac{2}{4}$

3.) $4\frac{1}{9}$

4.) $4\frac{2}{5}$

5.) $5\frac{3}{7}$

Directions: Rename the following improper fractions to mixed numbers.

6.) $\frac{25}{5}$

7.) $\frac{31}{6}$

8.) $\frac{38}{5}$

9.) $\frac{46}{9}$

10.) $\frac{59}{8}$

Lesson 57: Estimate fractions close to 0, $\frac{1}{2}$ or 1.
(Competency G. 7)

Exercise Set A

Directions: On the blank before each number, write 0 if the fraction is closer to zero. Write $\frac{1}{2}$ if the fraction is closer to one-half. Write 1 if the fraction is closer to one.

____ 1) $\frac{2}{10}$

____ 6) $\frac{3}{8}$

____ 2) $\frac{1}{2}$

____ 7) $\frac{6}{7}$

____ 3) $\frac{3}{4}$

____ 8) $\frac{9}{10}$

____ 4) $\frac{1}{5}$

____ 9) $\frac{2}{12}$

____ 5) $\frac{8}{11}$

____ 10) $\frac{2}{15}$

Exercise Set B

Directions: On the blank before each number, write 0 if the fraction is closer to zero. Write $\frac{1}{2}$ if the fraction is closer to one-half. Write 1 if the fraction is closer to one.

____ 1) $\frac{2}{9}$

____ 6) $\frac{5}{7}$

____ 2) $\frac{5}{6}$

____ 7) $\frac{8}{12}$

____ 3) $\frac{3}{5}$

____ 8) $\frac{7}{9}$

____ 4) $\frac{2}{3}$

____ 9) $\frac{12}{15}$

____ 5) $\frac{1}{5}$

____ 10) $\frac{2}{13}$

Lesson 58: Finding the least common denominator (LCD) of the set of fractions.
(Competency G. 8)

Exercise Set A

Directions: Identify the LCD of the following fractions. Write your answer on the blank provided.

1) $\frac{1}{3}, \frac{1}{5}$ _____

2) $\frac{1}{7}, \frac{1}{3}$ _____

3) $\frac{1}{4}, \frac{1}{6}$ _____

4) $\frac{2}{3}, \frac{2}{9}$ _____

5) $\frac{3}{6}, \frac{2}{10}$ _____

6) $\frac{3}{6}, \frac{4}{8}$ _____

7) $\frac{3}{5}, \frac{4}{7}$ _____

8) $\frac{4}{9}, \frac{3}{5}$ _____

9) $\frac{2}{12}, \frac{3}{8}$ _____

10) $\frac{4}{9}, \frac{3}{6}$ _____

Exercise Set B

Directions: Identify the LCD of the following fractions. Write your answer on the blank provided.

1) $\frac{3}{4}, \frac{2}{3}$ _____

2) $\frac{5}{6}, \frac{4}{5}$ _____

3) $\frac{4}{7}, \frac{2}{3}$ _____

4) $\frac{6}{8}, \frac{5}{6}$ _____

5) $\frac{3}{10}, \frac{1}{3}$ _____

6) $\frac{7}{12}, \frac{5}{6}$ _____

7) $\frac{4}{5}, \frac{1}{2}$ _____

8) $\frac{2}{6}, \frac{1}{3}, \frac{3}{4}$ _____

9) $\frac{3}{6}, \frac{4}{15}, \frac{2}{5}$ _____

10) $\frac{2}{9}, \frac{4}{6}, \frac{3}{4}$ _____

Lesson 59: Comparing fractions and mixed forms using cross product method.
(Competency G. 9.2)

Exercise Set A

Directions: Compare the fractions and mixed forms using the cross product method. Write $>$, $<$ or $=$ in the box.

1) $\frac{2}{3} \square \frac{4}{7}$

2) $\frac{1}{9} \square \frac{2}{6}$

3) $\frac{3}{5} \square \frac{1}{8}$

4) $\frac{4}{9} \square \frac{5}{6}$

5) $\frac{3}{5} \square \frac{4}{8}$

6) $\frac{7}{8} \square \frac{5}{6}$

7) $\frac{6}{8} \square \frac{4}{8}$

8) $\frac{5}{9} \square \frac{2}{10}$

9) $1\frac{3}{10} \square 1\frac{6}{9}$

10) $\frac{9}{10} \square \frac{9}{10}$

Exercise Set B

Directions: Compare the fractions and mixed forms using the cross product method. Write $>$, $<$ or $=$ in the box.

1) $\frac{1}{5} \square \frac{5}{6}$

2) $\frac{1}{6} \square \frac{4}{9}$

3) $\frac{4}{5} \square \frac{4}{7}$

4) $\frac{2}{9} \square \frac{3}{5}$

5) $\frac{5}{12} \square \frac{4}{6}$

6) $\frac{7}{9} \square \frac{3}{7}$

7) $\frac{5}{9} \square \frac{3}{8}$

8) $\frac{5}{8} \square \frac{2}{9}$

9) $\frac{4}{6} \square \frac{2}{10}$

10) $3\frac{4}{6} \square 3\frac{4}{6}$

Lesson 60: LCD Method
(Competency G. 9.3)

Exercise Set A

Directions: Solve for the LCD of the following fractions. Write your answer on the blank.

1) $\frac{3}{4}, \frac{2}{3} = \underline{\hspace{2cm}}$

2) $\frac{4}{5}, \frac{5}{6} = \underline{\hspace{2cm}}$

3) $\frac{3}{10}, \frac{1}{3} = \underline{\hspace{2cm}}$

4) $\frac{4}{9}, \frac{5}{12} = \underline{\hspace{2cm}}$

5) $\frac{6}{8}, \frac{5}{6} = \underline{\hspace{2cm}}$

6) $\frac{2}{3}, \frac{4}{7} = \underline{\hspace{2cm}}$

7) $\frac{7}{12}, \frac{5}{6} = \underline{\hspace{2cm}}$

8) $\frac{2}{3}, \frac{5}{6} = \underline{\hspace{2cm}}$

9) $\frac{8}{12}, \frac{7}{9} = \underline{\hspace{2cm}}$

10) $\frac{9}{15}, \frac{4}{10} = \underline{\hspace{2cm}}$

Exercise Set B

Directions: Solve for the LCD of the following fractions. Write your answer on the blank.

1) $\frac{2}{3}, \frac{1}{6} = \underline{\hspace{2cm}}$

2) $\frac{2}{4}, \frac{3}{8} = \underline{\hspace{2cm}}$

3) $\frac{1}{2}, \frac{3}{8} = \underline{\hspace{2cm}}$

4) $\frac{3}{7}, \frac{3}{14} = \underline{\hspace{2cm}}$

5) $\frac{2}{3}, \frac{4}{12} = \underline{\hspace{2cm}}$

6) $\frac{3}{4}, \frac{1}{16} = \underline{\hspace{2cm}}$

7) $\frac{2}{5}, \frac{3}{4} = \underline{\hspace{2cm}}$

8) $\frac{5}{12}, \frac{3}{8} = \underline{\hspace{2cm}}$

9) $\frac{1}{6}, \frac{7}{9} = \underline{\hspace{2cm}}$

10) $\frac{9}{16}, \frac{3}{24} = \underline{\hspace{2cm}}$

Lesson 61: Ordering fractions in simple and mixed forms in ascending / descending order using different methods. (Competency G. 10)

Exercise Set A

Directions: Arrange the following groups of fractions and mixed numbers below in ascending order. Write your answers on the blanks.

- 1) $\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{3}$ _____
- 2) $\frac{2}{10}$, $\frac{2}{4}$, $\frac{2}{12}$ _____
- 3) $\frac{3}{4}$, $\frac{4}{6}$, $\frac{5}{8}$ _____
- 4) $2\frac{3}{10}$, $2\frac{6}{10}$, $2\frac{1}{10}$ _____
- 5) $3\frac{4}{6}$, $7\frac{1}{8}$, $7\frac{7}{8}$ _____

Directions: Arrange the following groups of fractions and mixed number below in descending order. Write your answers on the blanks.

- 6) $\frac{2}{3}$, $\frac{1}{5}$, $\frac{4}{6}$ _____
- 7) $\frac{3}{8}$, $\frac{2}{7}$, $\frac{4}{4}$ _____
- 8) $\frac{5}{12}$, $\frac{3}{5}$, $\frac{2}{10}$ _____
- 9) $5\frac{2}{7}$, $3\frac{1}{5}$, $8\frac{1}{3}$ _____
- 10) $3\frac{2}{7}$, $3\frac{4}{6}$, $3\frac{7}{14}$ _____

Exercise Set B

Directions: Arrange the following groups of fractions and mixed numbers below in ascending order. Write your answers on the blanks.

- 1) $\frac{1}{12}$, $\frac{1}{3}$, $\frac{1}{2}$ _____
- 2) $\frac{2}{9}$, $\frac{7}{9}$, $\frac{8}{9}$ _____
- 3) $\frac{2}{3}$, $\frac{7}{10}$, $\frac{5}{6}$ _____
- 4) $3\frac{1}{2}$, $3\frac{5}{8}$, $3\frac{3}{4}$ _____
- 5) $1\frac{2}{6}$, $1\frac{3}{6}$, $1\frac{4}{6}$ _____

Directions: Arrange the following groups of fractions and mixed number below in descending order. Write your answers on the blanks.

- 6) $\frac{1}{2}$, $\frac{1}{5}$, $\frac{1}{10}$ _____
- 7) $\frac{12}{6}$, $\frac{7}{8}$, $\frac{5}{6}$ _____
- 8) $3\frac{1}{2}$, $3\frac{1}{5}$, $2\frac{7}{8}$ _____
- 9) $2\frac{7}{8}$, $2\frac{3}{4}$, $2\frac{4}{10}$ _____
- 10) $10\frac{6}{7}$, $9\frac{4}{7}$, $8\frac{2}{7}$ _____

Lesson 62: Reduce final answers to lowest term.
(Competency G. 11.1)

Exercise Set A

Directions: Solve the following problems below and reduce final answers to lowest term if necessary. Write your answers in your notebook.

1. Mother bought $\frac{1}{2}$ kg of pork and $\frac{2}{4}$ of chicken. How many kilograms of meat did she buy?
2. Ellen bought $\frac{6}{8}$ metres of lace. She used $\frac{4}{8}$ metre of it for her handkerchief. How much lace was left?
3. Jinky ate $\frac{2}{8}$ of cake while Victor ate $\frac{4}{8}$ of the same cake. How much cake did both of them eat together?
4. Mother prepared a pitcher of juice for merienda. She used $\frac{3}{4}$ liter of water and $\frac{1}{4}$ litre of juice concentrate. How much more water did she use than juice concentrate?
5. Peter bought $\frac{4}{8}$ kg of grapes. Joe bought $\frac{6}{8}$ kg. Who bought more grapes? And by how much more?
6. Lucy is preparing some native cakes, Lucy needs $\frac{1}{4}$ cup of brown sugar and $\frac{3}{4}$ cup of white sugar. How much sugar does she need?
7. Aling Rosa bought 6 kilograms of meat. She used $3\frac{1}{2}$ kgs for barbecue. How many kilograms of meat does she still have?
8. Trining bought $1\frac{1}{4}$ metres of red ribbon and $\frac{2}{4}$ metre of blue ribbon. How long are the 2 ribbons if put together from one end to another?
9. Dante had $\frac{6}{8}$ metres of wire. He cut $\frac{2}{8}$ metre for his project in Industrial Arts. How much wire was left?
10. Mother has $\frac{8}{10}$ metre of white cloth. She cut $\frac{6}{10}$ metre for her daughter's project. How many metres of cloth does she still have?

Lesson 62: Reduce final answers to lowest term.
(Competency G. 11.1)

Exercise Set B

Directions: Solve the following problems below and reduce final answers to lowest term if necessary. Write your answers in your notebook.

1. Mother bought $\frac{2}{4}$ kg of chico and $\frac{1}{4}$ kg of grapes. How many kilograms of fruits did she buy?
2. Joan bought $\frac{6}{8}$ metres of lace. She used $\frac{2}{8}$ metre of it for her project. How much lace was left?
3. Jenny ate $\frac{1}{8}$ of cake while Joan ate $\frac{5}{8}$ of the same cake. How much cake did both of them eat together?
4. Pauline prepared a pitcher of juice for merienda. She used $\frac{3}{4}$ liter of water and $\frac{1}{4}$ litre of juice concentrate. How much water did she use than juice concentrate?
5. Paulo bought $\frac{4}{12}$ kg of grapes. Joe bought $\frac{6}{12}$ kg. Who bought more grapes? By how much more?
6. Nena needs $\frac{1}{6}$ cup of brown sugar and $\frac{3}{6}$ cup of white sugar to prepare native cakes. How much sugar does she need?
7. Trina bought $2\frac{1}{2}$ metres of white ribbon and $\frac{2}{4}$ meter of blue ribbon. How long are the 2 ribbons if you put together from one end to another?
8. Dondon had $\frac{6}{10}$ meter of wire. He cut $\frac{2}{10}$ meter for his project in school. How much wire was left?
9. Lola has $\frac{8}{12}$ meter of white cloth. She cut $\frac{6}{12}$ meter for her grand daughter's project. How many meters of cloth does she still have?
10. Aling Mely bought 10 kilograms of meat. She used $3\frac{1}{2}$ kgs for adobo. How many kilograms of meat does she still have?

Lesson 63: Visualizing addition and subtraction of fractions (using concrete and visual / pictorial models.)
(Competency H. 1)

Exercise Set A

Directions: Use a pie and show the sum of the following fractions below.

1) $\frac{1}{5} + \frac{2}{5}$ 2) $\frac{2}{3} + \frac{1}{3}$

3) $\frac{3}{10} + \frac{2}{10}$ 4) $\frac{1}{8} + \frac{4}{8}$

5) $\frac{6}{12} + \frac{2}{12}$

Directions: Use strips of paper and subtract the following equations below.

1) $\frac{3}{4} - \frac{1}{4}$ 2) $\frac{5}{10} - \frac{3}{10}$

3) $\frac{4}{12} - \frac{2}{12}$ 4) $\frac{6}{9} - \frac{3}{9}$

5) $\frac{5}{8} - \frac{1}{8}$

Exercise Set B

Directions: Use a pie and show the sum of the following fractions below.

1) $\frac{2}{6} + \frac{2}{6}$ 2) $\frac{3}{8} + \frac{4}{8}$

3) $\frac{4}{10} + \frac{2}{10}$ 4) $\frac{5}{9} + \frac{2}{9}$

5) $\frac{1}{7} + \frac{3}{7}$

Directions: Use strips of paper and subtract the following equations below.

1) $\frac{3}{5} - \frac{1}{5}$ 2) $\frac{4}{6} - \frac{2}{6}$

3) $\frac{3}{8} - \frac{1}{8}$ 4) $\frac{5}{10} - \frac{2}{10}$

5) $\frac{6}{12} - \frac{4}{12}$

**Lesson 64: Estimate sum and difference of fractions in simple form.
(Competency H. 2)**

Exercise Set A

Directions: Estimate then find the sum or difference.

1. $\frac{1}{5} + \frac{2}{3} =$

2. $\frac{4}{10} + \frac{7}{8} =$

3. $\frac{2}{8} + \frac{10}{12} =$

4. $\frac{3}{4} + \frac{3}{8} =$

5. $\frac{6}{14} + \frac{1}{5} =$

6. $\frac{7}{8} - \frac{2}{5} =$

7. $\frac{4}{9} - \frac{1}{4} =$

8. $\frac{10}{12} - \frac{3}{4} =$

9. $\frac{9}{12} + 4\frac{8}{12} =$

10. $6\frac{12}{15} - 2\frac{3}{15} =$

Exercise Set B

Directions: Estimate then find the sum or difference.

1. $\frac{4}{5} + \frac{2}{10} =$

2. $\frac{2}{9} + \frac{1}{8} =$

3. $\frac{2}{3} + \frac{1}{5} =$

4. $\frac{3}{7} + \frac{7}{9} =$

5. $\frac{5}{8} + \frac{7}{10} =$

6. $\frac{8}{9} - \frac{2}{10} =$

7. $\frac{14}{15} - \frac{6}{8} =$

8. $\frac{10}{18} - \frac{6}{9} =$

9. $10\frac{2}{6} - 3\frac{6}{8} =$

10. $4\frac{2}{8} - \frac{5}{6} =$

Lesson 65: Adding or subtracting similar fractions in simple or mixed forms without regrouping.
(Competency H. 3)

Exercise Set A

Directions: Add or subtract the following and reduce all answers to lowest terms.

1) $\frac{2}{4} + \frac{1}{4} =$

2) $\frac{2}{6} + \frac{3}{6} =$

3) $\frac{6}{10} + \frac{2}{10} =$

4) $\frac{6}{8} + \frac{4}{8} =$

5) $\frac{8}{12} + \frac{4}{12} =$

6) $2\frac{4}{8} + 3\frac{1}{8} =$

7) $3\frac{3}{9} + 4\frac{3}{9} =$

8) $5\frac{4}{10} + 6\frac{5}{10} =$

9) $2\frac{9}{15} + 1\frac{4}{15} =$

10) $10\frac{6}{20} - 4\frac{2}{20} =$

Exercise Set B

Directions: Add or subtract the following and reduce all answers to lowest terms.

1) $\frac{3}{9} + \frac{2}{9} =$

2) $\frac{4}{16} + \frac{6}{16} =$

3) $\frac{5}{20} + \frac{10}{20} =$

4) $\frac{10}{24} - \frac{2}{24} =$

5) $\frac{12}{30} - \frac{2}{30} =$

6) $10\frac{11}{20} + 11\frac{7}{20} =$

7) $21\frac{20}{28} + 16\frac{2}{28} =$

8) $17\frac{6}{30} + 31\frac{9}{30} =$

9) $65\frac{6}{36} - 40\frac{1}{36} =$

10) $75\frac{40}{40} - 60\frac{20}{40} =$

Lesson 66: Add or subtract similar fractions in simple or mixed forms with regrouping.
(Competency H. 4)

Exercise Set A

Directions: Solve for the sum or difference of each equation and reduce all answers to lowest terms.

1) $\frac{5}{8} + \frac{7}{8} =$

2) $\frac{17}{21} + \frac{7}{21} =$

3) $\frac{15}{28} + \frac{22}{28} =$

4) $4\frac{3}{12} + 2\frac{9}{12} =$

5) $13\frac{25}{25} + 8\frac{15}{25} =$

6) $\frac{9}{24} - \frac{3}{24} =$

7) $\frac{12}{18} - \frac{6}{18} =$

8) $\frac{10}{16} - \frac{4}{16} =$

9) $3\frac{4}{8} + 2\frac{5}{8} =$

10) $15\frac{3}{4} - 13\frac{1}{4} =$

Exercise Set B

Directions: Solve for the sum or difference of each equation and reduce all answers to lowest terms.

1) $\frac{29}{35} + \frac{16}{35} =$

2) $\frac{20}{48} + \frac{36}{48} =$

3) $\frac{20}{55} + \frac{15}{55} =$

4) $13\frac{15}{35} + 8\frac{25}{35} =$

5) $6\frac{20}{42} + 3\frac{12}{42} =$

6) $\frac{4}{28} - \frac{2}{28} =$

7) $\frac{8}{40} - \frac{2}{40} =$

8) $\frac{16}{20} - \frac{8}{20} =$

9) $2\frac{2}{5} - 1\frac{1}{5} =$

10) $15\frac{5}{6} - 11\frac{2}{6} =$

Lesson 67: Adding fractions in simple or mixed forms without regrouping.
(Competency H. 5)

Exercise Set A

Directions: Solve for the sum of each equation and reduce all answers to lowest terms.

1) $\frac{1}{3} + \frac{1}{4} =$

2) $\frac{2}{4} + \frac{3}{6} =$

3) $\frac{1}{5} + \frac{3}{4} =$

4) $\frac{2}{8} + \frac{2}{3} =$

5) $\frac{4}{7} + \frac{2}{14} =$

6) $6\frac{1}{2} + 2\frac{1}{3} =$

7) $4\frac{1}{4} + 3\frac{1}{8} =$

8) $5\frac{1}{6} + 2\frac{2}{12} =$

9) $7\frac{2}{3} + 5\frac{1}{4} =$

10) $4\frac{1}{7} + 9\frac{1}{2} =$

Exercise Set B

Directions: Solve for the sum of each equation and reduce all answers to lowest terms.

1) $\frac{1}{2} + \frac{2}{8} =$

2) $\frac{1}{5} + \frac{3}{10} =$

3) $\frac{1}{4} + \frac{1}{3} + \frac{1}{6} =$

4) $\frac{3}{8} + \frac{1}{6} =$

5) $\frac{3}{9} + \frac{2}{6} =$

6) $1\frac{1}{6} + 1\frac{1}{3} + 2\frac{1}{9} =$

7) $6\frac{1}{2} + 2\frac{1}{3} =$

8) $3\frac{1}{10} + 7\frac{1}{4} =$

9) $6\frac{1}{7} + 10\frac{1}{2} =$

10) $1\frac{1}{5} + 3\frac{1}{15} + 6\frac{1}{10} =$

Lesson 68: Subtracting dissimilar fraction in simple or mixed forms without regrouping.
(Competency H. 6)

Exercise Set A

Directions: Solve for the difference of each equation and reduce all answers to lowest terms.

1) $\frac{2}{3} - \frac{5}{8} =$

2) $\frac{5}{7} - \frac{2}{3} =$

3) $\frac{7}{15} - \frac{1}{5} =$

4) $\frac{5}{8} - \frac{1}{4} =$

5) $\frac{6}{12} - \frac{2}{24} =$

6) $3\frac{1}{4} - 1\frac{1}{8} =$

7) $15\frac{1}{5} - 11\frac{7}{6} =$

8) $8\frac{5}{8} - 3\frac{1}{4} =$

9) $6\frac{7}{10} - 3\frac{1}{4} =$

10) $6\frac{3}{4} - 2\frac{1}{2} =$

Exercise Set B

Directions: Solve for the difference of each equation and reduce all answers to lowest terms.

1) $\frac{12}{12} - \frac{5}{6} =$

2) $\frac{6}{11} - \frac{2}{7} =$

3) $\frac{8}{10} - \frac{4}{9} =$

4) $\frac{5}{8} - \frac{1}{3} =$

5) $\frac{6}{7} - \frac{1}{2} =$

6) $9\frac{2}{9} - 2\frac{1}{8} =$

7) $15\frac{6}{7} - 9\frac{2}{5} =$

8) $15\frac{3}{12} - 8\frac{1}{5} =$

9) $6\frac{1}{5} - 2\frac{1}{10} =$

10) $26\frac{1}{5} - 11\frac{1}{10} =$

Lesson 69: Adding similar and dissimilar fractions using the properties of addition.
(Competency H. 7)

Exercise Set A

Directions: Using the properties of addition, add the following equations mentally. Simplify your answers.

1) $\frac{1}{4} + \frac{3}{4} =$

2) $\frac{1}{5} + \frac{3}{5} =$

3) $\frac{1}{2} + \frac{1}{3} =$

4) $\frac{5}{9} + \frac{6}{9} =$

5) $\frac{1}{2} + \frac{3}{4} + \frac{3}{4} =$

6) $\frac{1}{2} + \frac{1}{3} + \frac{1}{6} =$

7) $\frac{1}{3} + \frac{1}{5} =$

8) $\frac{1}{4} + \frac{1}{3} =$

9) $\frac{1}{6} + \frac{1}{4} =$

10) $\frac{1}{4} + \frac{1}{5} =$

Exercise Set B

Directions: Using the properties of addition, add the following equations mentally. Simplify your answers.

1) $\frac{6}{12} + \frac{3}{5} =$

2) $\frac{4}{20} + \frac{8}{20} + \frac{3}{20} =$

3) $\frac{3}{10} + \frac{9}{10} =$

4) $\frac{1}{3} + \frac{1}{4} + \frac{1}{2} =$

5) $\frac{2}{3} + \frac{1}{4} + \frac{1}{2} =$

6) $\frac{1}{11} + \frac{3}{11} + \frac{4}{11} =$

7) $\frac{8}{15} + \frac{7}{15} + \frac{3}{15} =$

8) $\frac{7}{14} + \frac{3}{14} + \frac{2}{14} =$

9) $\frac{2}{3} + \frac{3}{4} =$

10) $\frac{7}{18} + \frac{3}{18} + \frac{5}{18} =$

Lesson 70: Making drawings or diagrams for better understanding of the given problems.
(Competency H. 8.2)

Exercise Set A

Direction: Use drawings to solve the word problems below. Make your drawings in your notebook

1. Marie studied $\frac{3}{4}$ hour on Saturday and $\frac{1}{2}$ hour on Sunday. How long did she study in two days?
2. Liza has $2\frac{3}{4}$ metres of ribbon. She used $1\frac{2}{3}$ metres for her project. How many metres of ribbon were left?
3. Three bags of fruits weigh $2\frac{4}{7}$ kgs, $5\frac{2}{3}$ kgs, and $3\frac{1}{2}$ kgs. What is the total weight of the fruits?
4. Steve drove his bicycle for $\frac{1}{4}$ km going to church. Then, he proceeded for another $\frac{1}{6}$ km to school. He drove another $\frac{1}{3}$ km on his way home. How far did he cover from the church to his house?
5. At the party, Iris ate $\frac{1}{10}$ of the cake, Del ate $\frac{2}{10}$ and Fe ate $\frac{2}{10}$. What part of the cake did the three girls eat?
6. John painted $\frac{1}{3}$ of the classroom on Monday. He painted $\frac{1}{2}$ of the classroom on Friday. What part of the classroom was painted in two days?
7. Mang Pilo planted $\frac{3}{8}$ hectare from his $\frac{1}{2}$ hectare vacant lot with pechay. What part of the lot would be left for tomatoes?
8. Chit had $\frac{5}{6}$ kg of sugar. She cooked suman using $\frac{1}{30}$ of it. How much will she use to make juice if she will use the remaining part?
9. Paul ran for $\frac{7}{8}$ hour and walked $\frac{1}{2}$ hour to practice for a race. How much longer did he run than walk?
10. Grace prepared $2\frac{1}{3}$ litres of buko juice and $1\frac{1}{5}$ liters of calamansi juice to sell one Saturday afternoon. How many litres of juice did she prepare?

Lesson 70: Making drawings or diagrams for better understanding of the given problems.
(Competency H. 8.2)

Exercise Set B

Direction: Use drawings to solve the word problems below. Make your drawings in your notebook

1. Marie studied $1\frac{1}{6}$ hour on Saturday and $\frac{3}{4}$ hour on Sunday. How long did she study in two days?
2. Julie has $1\frac{4}{10}$ metres of ribbon. She used $\frac{1}{2}$ metre for the project. How many metres of ribbon were left?
3. Three bags of fruits weigh $2\frac{1}{3}$ kg, $4\frac{3}{6}$ kg, and $2\frac{1}{2}$ kg. What is the total weight of the fruits?
4. Roy rode his bicycle $\frac{1}{3}$ km to the church. Then, proceeded $\frac{1}{4}$ km to school. He rode another $\frac{1}{5}$ km on his way home. How far did he ride in all?
5. At the party, Eva ate $\frac{1}{5}$ of the cake, Emma ate $\frac{2}{6}$ and Joy ate $\frac{3}{10}$. What part of the cake did the three girls eat?
6. Joe painted $\frac{1}{4}$ of the room on Saturday. He painted $\frac{1}{5}$ of it on Sunday. What part of the room was painted in two days?
7. Mang Diko planted $\frac{3}{10}$ hectare out of his $\frac{1}{2}$ hectare vacant lot with pechay. What part of hectare would be left for tomatoes?
8. Jessica had $\frac{4}{8}$ kg of sugar. She cooked suman using $\frac{2}{8}$ of it. How much will she use to make a juice drink if she will use the remaining part?
9. Noel ran for $\frac{7}{10}$ hour and walked $\frac{1}{5}$ hour to practice for the race. How much longer did he run than walk?
10. Agnes prepared $3\frac{1}{4}$ liters of buko juice and $2\frac{1}{3}$ liters of calamansi juice to sell one Sunday afternoon. How many liters of juice did she prepare?

Lesson 71: Add or subtract dissimilar fractions in simple or mixed forms with regrouping.

Exercise Set A

Direction: Add or subtract then express all answers to the lowest term if necessary.

$$\begin{array}{r} 1) \frac{1}{8} \\ + \frac{3}{4} \\ \hline \end{array} \quad \begin{array}{r} 2) \frac{2}{9} \\ + 7\frac{2}{6} \\ \hline \end{array} \quad \begin{array}{r} 3) 2\frac{3}{7} \\ + \frac{2}{5} \\ \hline \end{array} \quad \begin{array}{r} 4) 3\frac{4}{3} \\ + 10\frac{6}{12} \\ \hline \end{array} \quad \begin{array}{r} 5) 7\frac{5}{6} \\ 1\frac{3}{9} \\ + 2\frac{1}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 6) 2\frac{3}{4} \\ - \frac{2}{9} \\ \hline \end{array} \quad \begin{array}{r} 7) 15\frac{7}{9} \\ - 11\frac{3}{4} \\ \hline \end{array} \quad \begin{array}{r} 8) 5\frac{2}{5} \\ - 1\frac{3}{4} \\ \hline \end{array} \quad \begin{array}{r} 9) 27\frac{8}{15} \\ - 21\frac{3}{5} \\ \hline \end{array} \quad \begin{array}{r} 10) 32\frac{4}{9} \\ - 25\frac{1}{2} \\ \hline \end{array}$$

Lesson 71: Add or subtract dissimilar fractions in simple or mixed forms with regrouping.

Exercise Set B

Direction: Add or subtract then express all answers to the lowest term if necessary.

$$\begin{array}{r} 1) \quad 2\frac{1}{8} \\ \quad + \frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 5\frac{2}{9} \\ \quad + \frac{2}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 3\frac{1}{7} \\ \quad + 5\frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 4) \quad 6\frac{1}{3} \\ \quad + 12\frac{1}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 5) \quad 2\frac{2}{8} \\ \quad + 2\frac{1}{10} \\ \hline \end{array}$$

$$\begin{array}{r} 6) \quad 5\frac{2}{5} \\ \quad - 1\frac{3}{4} \\ \hline \end{array}$$

$$\begin{array}{r} 7) \quad 27\frac{8}{15} \\ \quad - 25\frac{3}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 8) \quad 12\frac{6}{13} \\ \quad - 1\frac{7}{8} \\ \hline \end{array}$$

$$\begin{array}{r} 9) \quad 6\frac{2}{8} \\ \quad - 5\frac{4}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 10) \quad 32\frac{4}{9} \\ \quad - 25\frac{1}{2} \\ \hline \end{array}$$

Lesson 72: Write an equation to solve word problems.

Exercise Set A

Direction: Write an equation for these problems then solve for the answer. Reduce all answers to lowest terms.

1. Nena prepared $\frac{3}{5}$ cup of lemonade and $\frac{3}{5}$ cups of oranges. How many cups of juice drinks did Nena prepare?
2. Ann took $\frac{1}{8}$ hour to go to a food chain and $\frac{1}{7}$ hour to go back home. How long did it take her to go back and forth from the food chain?
3. For every $\frac{3}{4}$ cup of water, Josie add $\frac{1}{4}$ cup of pure pineapple extract. How many cups of mixtures does she have?
4. Ivan ran $\frac{3}{5}$ of a kilometre and Joshua ran $\frac{4}{5}$ of a kilometre. Together, how long did they run?
5. Cristy finished her assignment in English for $1\frac{2}{8}$ hours. She finished her assignment in Filipino for $\frac{5}{8}$ hours. How long did it take her to finish the two assignments?
6. Shaira watched TV for $1\frac{2}{5}$ hours and listened to the radio for $2\frac{3}{4}$ hours. How much longer is the time spent in watching TV than listening to the radio?
7. Flor needs $8\frac{4}{5}$ kilos of flour for the 5 fruitcakes she will bake. How many kilos more does she need if she has $7\frac{2}{3}$ kilos already?
8. A crate of pomelos weighs $20\frac{4}{7}$ kilograms. After selling $19\frac{2}{7}$ kilograms, how many kilograms of pomelos were left?
9. After the concrete fencing, $8\frac{1}{3}$ bags of cement is left. If there were $35\frac{2}{5}$ bags of cement originally, how many bags of cement were used?
10. Justine has a bamboo pole $12\frac{1}{2}$ m long. $3\frac{4}{5}$ m was cut from it. How many meters were left of the pole?

Lesson 72: Write an equation to solve word problems.

Exercise Set B

Direction: Write an equation for these problems then solve for the answer. Reduce all answers to lowest terms.

1. Johnny rode his bicycle $\frac{1}{4}$ km to the school. Then, proceeded $\frac{1}{6}$ km to church. He rode another $\frac{1}{3}$ km on his way home. How far did he ride in all?
2. Raymart filled up the pail with $7\frac{1}{2}$ litres of water while Jun filled the same pail with $5\frac{4}{5}$ liters. How much water is in the pail?
3. Mariella studied $3\frac{3}{4}$ hours on Saturday and $5\frac{1}{2}$ hours on Sunday. How long did she study in two days?
4. Two bags of fruits weigh $2\frac{4}{7}$ kg and $5\frac{2}{3}$ kg. What is the total weight of the fruits?
5. Roman played basketball for $2\frac{1}{2}$ hours and chess for $3\frac{3}{4}$ hours. How much time did he spend for the two events?
6. For a recipe of a marble cake. Joan needs $3\frac{1}{4}$ cups of flour. If she has $1\frac{3}{4}$ cups, how many more cups of flour does she need?
7. During a contest, Manny drank $1\frac{9}{5}$ liters of lemonade. Frank drank $1\frac{1}{2}$ liters. Who drank more lemonade? By how many litres?
8. There are $5\frac{2}{3}$ dozens of white daisies and $3\frac{1}{4}$ dozens of yellow daisies. How many more white daisies are there than yellow daisies?
9. Tonio sells canned fruits. If he has $15\frac{1}{2}$ cases to sell and has $2\frac{1}{2}$ cases left, how many cases of canned fruits were sold?
10. Mang Lucio butchered his pig weighing $39\frac{5}{8}$ kilograms. He sold $30\frac{1}{2}$ kilograms and gave $8\frac{1}{3}$ kilograms to his helpers. How many kilograms of meat were disposed?

Lesson 73: What is asked, what is /are given. The word clue/s, the operation to be used.

Exercise Set A

Directions: Analyze the following problems then solve for the answer.

Liza helps her mother tend to their store on weekends. She works in the store for $6\frac{1}{2}$ hours on Saturdays and $3\frac{3}{4}$ hours on Sunday. How many hours in all does Liza work in their store on weekends?

1. What is asked?

2. What are the given?

3. What is/are the word clue/s?

4. What operation will you use to solve the problem?

5. What is the answer?

Father spends $6\frac{2}{3}$ hours working on his farm and $3\frac{1}{4}$ hours working on his fishpond. How many more hours does he spend working on his farm than on his fishpond?

6. What is asked?

7. What are the given?

8. What is/are the word clue/s?

9. What operation will you use to solve the problem?

10. What is the answer?

Exercise Set B

Directions: Analyze the following problems then solve for the answer.

Mother bought $1\frac{1}{2}$ kilogram of pork $2\frac{2}{3}$ kgs. of beef and $1\frac{1}{4}$ kgs. of chicken. How many kilograms of meat did mother buy in all?

1. What is asked?

2. What are the given?

3. What is/are the word clue/s?

4. What operation will you use to solve the problem?

5. What is the answer?

Kaye bought $3\frac{1}{2}$ kgs of chicken. She used $2\frac{1}{3}$ kgs of it for adobo. How many kgs of chicken was left?

6. What is asked?

7. What are the given?

8. What is/are the word clue/s?

9. What operation will you use to solve the problem?

10. What is the answer?

Lesson 74: Using the correct operation in solving word problems involving addition or subtraction of fractions in simple and mixed forms with or without regrouping.
(Competency H. 8.3.2)

Exercise Set A

Direction: Read and solve the following word problems using the correct operations. Write your answers in your notebook.

1. Eva needs $\frac{1}{4}$ cup of brown sugar and $\frac{3}{4}$ cup of refined sugar. How much sugar does she need in order to make some native cakes?
2. Mrs. Kuan bought 6 kilograms of meat. She used $3\frac{1}{2}$ kilograms for barbecue. How many kilograms of meat does she still have?
3. Alma weighs $20\frac{3}{4}$ kilograms. Sonia weighs $18\frac{1}{4}$ kilograms. Who is heavier and by how much?
4. Ronnie practiced playing the guitar for $\frac{2}{6}$ of an hour. He practiced playing the piano for $\frac{3}{6}$ of an hour. How many hours did she practice playing both instruments?
5. Aling Martha has 20 kilograms of tilapia to sell in the market. If she already sold $5\frac{1}{2}$ kilograms, how many more kilograms of tilapia does she need to sell?
6. Father bought 3 kilograms of grapes and $1\frac{1}{4}$ kilograms of bananas. How many kilograms of fruits did he buy in all?
7. Trixia bought $1\frac{1}{4}$ meters of white ribbon and $\frac{3}{4}$ m of blue ribbon. How long are the 2 ribbons if put together from one end to another?
8. Aling Ana has $\frac{8}{10}$ meter of white cloth. She cut $\frac{6}{10}$ m for her daughter's project. How many meters of cloth does she still have?
9. Danny had $\frac{6}{8}$ meters of wire. He cut $\frac{2}{8}$ m for his project in EPP. How much wire was left?
10. Cecile added $3\frac{1}{3}$ glasses of water to $2\frac{1}{3}$ glasses of fruit juice to make a juice drink. How many glasses of juice did she prepare?

Lesson 74: Using the correct operation in solving word problems involving addition or subtraction of fractions in simple and mixed forms with or without regrouping.
(Competency H. 8.3.2)

Exercise Set B

Direction: Read and solve the following word problems using the correct operations. Write your answers in your notebook.

1. Emma needs $\frac{2}{3}$ cup of brown sugar and $\frac{3}{4}$ cup of refined sugar. How much sugar does she need?
2. Mrs. Gacho bought 8 kilograms of meat. She used $4\frac{1}{2}$ kilograms for barbecue. How many kilograms of meat does she still have?
3. Gabriella weighs $21\frac{3}{4}$ kilograms. Dina weighs $19\frac{1}{4}$ kilograms. Who is heavier and by how much?
4. Michael practiced playing the guitar for $\frac{3}{6}$ of an hour. He practiced playing the piano for $\frac{4}{6}$ of an hour. How many hours did he practice playing both instruments?
5. Aling Mina has 24 kilograms of tilapia to sell in the market. If she already sold $6\frac{1}{2}$ kilograms, how many more kilograms of tilapia does she need to sell?
6. Raul bought 5 kilograms of grapes and $3\frac{1}{4}$ kilograms of bananas. How many kilograms of fruits did he buy in all?
7. Janine bought $2\frac{1}{4}$ meters of white ribbon and $\frac{3}{4}$ m of blue ribbon. How long are the 2 ribbons if put together from one end to another?
8. Aling Selya has $\frac{8}{12}$ meter of white cloth. She cut $\frac{6}{12}$ m for her daughter's project. How many meters of cloth does she still have?
9. Alex had $\frac{9}{10}$ meters of wire. He cut $\frac{4}{10}$ m for his project in EPP. How much wire was left?
10. Corazon added $4\frac{1}{3}$ glasses of water to $2\frac{1}{3}$ glasses of fruit juice to make a juice drink. How many glasses of juice did she prepare?

**Lesson 75: Describe in a complete sentence with proper labels/units.
(Competency H. 8.3.3)**

Exercise Set A

Direction: Write the number sentence then solve for the answer. Label your answers properly. Write your answers in your notebook.

1. Lucy bought $5\frac{2}{3}$ m of red ribbon, $6\frac{4}{5}$ m of white ribbon, and $8\frac{1}{2}$ m of yellow ribbon. How many meters of ribbon did she buy in all?
2. Mrs. Robles sold $23\frac{1}{2}$ dozen of chocolate cookies and $18\frac{3}{4}$ dozen oatmeal cookies. How many dozen of cookies did she sell in all?
3. Janella studies her lessons for $4\frac{1}{3}$ hours everyday. Ann studies for $5\frac{1}{4}$ hours and Luz for $6\frac{1}{2}$ hours. How many hours do the three girls spend studying their lessons?
4. Patie cleaned the house for $1\frac{1}{3}$ hours, did the laundry for $2\frac{1}{2}$ hours and cooked dinner for $\frac{3}{4}$ hour. How many hours did Patie spend doing her household chores?
5. Ruben worked on his project for $5\frac{1}{6}$ hours, while Marlon worked on his project for $3\frac{3}{4}$ hours. How many hours did the two boys spend on their projects?

Exercise Set B

Direction: Write the number sentence then solve for the answer. Label your answers properly. Write your answers in your notebook.

1. Mr. Gomez owned a piece of lot with an area of $250\frac{1}{2}$ m², if he sold 120m² of it, how many square meters of his lot was left to him?
2. Edna had a gold chain that is $36\frac{2}{5}$ cm long. If she used $8\frac{1}{2}$ cm for a bracelet, how many centimeters long of the gold chain was left?
3. Ronald travels $6\frac{2}{3}$ km in going to his relative's house. In going back home, he takes a shorter route and travels $5\frac{1}{2}$ km only. How much farther does he travel in going to his relative's house than in going home?
4. Mrs. Rebanal bought $2\frac{1}{2}$ dozen of red roses and $3\frac{3}{4}$ dozens of white roses. How many more dozen of white roses are there than red roses?
5. Joy gave me $2\frac{1}{2}$ m of red lace and $3\frac{3}{5}$ m of gold lace. If my project requires 8m of lace in all, how many more meters of lace do I need to buy?

Lesson 76: Tell what is asked, what are the given, the word clues and the operation to be used.
(Competency H. 8.4.1.1)

Exercise Set A

Direction: Tell what is asked in the problem, what are the given, the word clues and the operation to be used.

1. Aling Tina, a fish vendor, had $18 \frac{1}{2}$ kgs of fish when she started peddling. After an hour, she sold $4 \frac{3}{4}$ kgs. Three hours later she sold another $10 \frac{1}{4}$ kgs. How many kilos of fish were unsold?
 - a. What is asked? _____
 - b. What are the given? _____
 - c. What are the word clues? _____
 - d. What are the operations to be used? _____

2. Fred gathered 5 baskets of mangoes. His mother gave $1 \frac{1}{4}$ baskets of mangoes to his cousin and he sold $2 \frac{1}{2}$ baskets of mangoes. How many baskets of mangoes were left?
 - a. What is asked? _____
 - b. What are the given? _____
 - c. What are the word clues? _____
 - d. What are the operations to be used? _____

3. Jose has a pocketbook containing 500 pages. For the first day he read $75 \frac{1}{2}$ pages; on the second day, he read $200 \frac{1}{4}$ pages. How many pages were still un read?
 - a. What is asked? _____
 - b. What are the given? _____
 - c. What are the word clues? _____
 - d. What are the operations to be used? _____

Lesson 76: Tell what is asked, what are the given, the word clues and the operation to be used.
(Competency H. 8.4.1.1)

Exercise Set B

Direction: Tell what is asked in the problem, what are the given, the word clues and the operation to be used.

1. Donald has $5\frac{1}{2}$ pesos. He spent $1\frac{1}{5}$ pesos for candies and $3\frac{3}{10}$ pesos for pad of paper. How much was left?
 - a. What is asked? _____
 - b. What are the given? _____
 - c. What are the word clues? _____
 - d. What are the operations to be used? _____

2. Hubert caught 3 fishes and the weight was $4\frac{3}{5}$ kgs. The fish weighs $\frac{7}{8}$ kg and another weighs $1\frac{3}{4}$ kgs. What was the weight of the last fish caught?
 - a. What is asked? _____
 - b. What are the given? _____
 - c. What are the word clues? _____
 - d. What are the operations to be used? _____

3. Enrique required his worker to work for 8 hours a day in his garden. His worker works only for $1\frac{1}{4}$ hours every morning and $2\frac{1}{3}$ hours every afternoon. How many more hours does his worker work to complete the 8 hours each day?
 - a. What is asked? _____
 - b. What are the given? _____
 - c. What are the word clues? _____
 - d. What are the operations to be used? _____

Lesson 77: Describing answers in a complete sentence with proper labels/units.
(Competency H. 8.4.3)

Exercise Set A

Direction: Write your answer in a complete sentence with proper labels/units.

1. The other day, Mr. Caballero harvested $49\frac{3}{4}$ baskets of calamansi the other day from his calamansi farm. Yesterday, his men harvested $55\frac{1}{4}$ baskets. If he sold $91\frac{1}{3}$ baskets of calamansi, how many baskets were unsold?
2. Aling Zenaida bought $4\frac{1}{4}$ dozen of eggs. She sold 2 dozens of eggs in her sari-sari store and cooked $\frac{1}{6}$ dozen for her family's breakfast. How many eggs were left?
3. A farmer had 2 sacks of palay weighing $50\frac{1}{2}$ kgs and $48\frac{3}{4}$ kgs. He sold $88\frac{1}{3}$ kgs to his friend. How many kgs. Of palay remained?
4. Paz had $1\frac{1}{2}$ oranges. She ate $\frac{3}{4}$ of an orange. She gave $\frac{1}{3}$ of the orange to her sister. How much of the oranges were left?
5. Mar has a pocketbook containing 550 pages. For the first day he read $78\frac{1}{2}$ pages; on the second day, he read $205\frac{1}{4}$ pages. How many pages will he be reading?
6. Clyde gathered 6 baskets of mangoes. His mother gave $2\frac{1}{3}$ baskets of mangoes to his cousin and he sold $2\frac{1}{4}$ baskets of mangoes. How many baskets of mangoes were left?
7. Aling Lourdes, a fish vendor, had $20\frac{1}{2}$ kgs of fish when she started peddling. After an hour, she sold $6\frac{1}{4}$ kgs. Three hours later she sold another $12\frac{1}{4}$ kgs. How many kilograms of fish were unsold?
8. Dan has $15\frac{1}{2}$ pesos. He spent $5\frac{1}{4}$ pesos for candies and $4\frac{1}{2}$ pesos for pad of paper. How much was left?
9. Noel caught 3 fishes and the weights were $6\frac{3}{4}$ kgs. The first fish weighs $1\frac{1}{3}$ kgs and the second weighs $2\frac{1}{5}$ kgs. What was the weight of the last fish caught?
10. Ben required his worker to work for 8 hours a day in his garden. His worker works only for $2\frac{1}{4}$ hours every morning and $2\frac{1}{5}$ hours every afternoon. How many more hours does his worker work to complete the 8 hours each day?

Lesson 77: Describing answers in a complete sentence with proper labels/units.
(Competency H. 8.4.3)

Exercise Set B

Direction: Write your answer in a complete sentence with proper labels/units.

1. Mr. Cruz harvested $55\frac{3}{4}$ baskets of calamansi the other day from his calamansi farm. Yesterday, his men harvested $48\frac{1}{3}$ baskets. If he sold $92\frac{2}{3}$ baskets of calamansi, how many baskets were left?
2. Aling Josefa bought $6\frac{1}{5}$ dozen of eggs. She sold 3 dozens of eggs in her sari-sari store and cooked $\frac{1}{4}$ dozen for her family's breakfast. How many eggs were left?
3. A farmer had 2 sacks of palay weighing $52\frac{1}{4}$ kgs and $49\frac{1}{2}$ kgs. He sold $85\frac{1}{2}$ kgs to his friend. How many kgs. Of palay remained?
4. Pauline had $2\frac{1}{2}$ oranges. She ate $\frac{3}{4}$ of an orange. She gave $\frac{1}{3}$ of the orange to her sister. How much of the oranges were left?
5. Cyril has a pocketbook containing 575 pages. For the first day he read $182\frac{1}{2}$ pages; on the second day, he read $201\frac{1}{4}$ pages. How many pages will he be reading?
6. Ken gathered 7 baskets of mangoes. His mother gave $3\frac{2}{4}$ baskets of mangoes to his cousin and he sold $3\frac{1}{4}$ baskets of mangoes. How many baskets of mangoes were left?
7. Aling Minerva, a fish vendor, had $24\frac{1}{2}$ kgs of fish when she started peddling. After an hour, she sold $8\frac{1}{4}$ kgs. Three hours later she sold another $14\frac{1}{4}$ kgs. How many kilograms of fish were unsold?
8. Pete has $18\frac{1}{2}$ pesos. He spent $7\frac{1}{2}$ pesos for ball pen and $4\frac{1}{4}$ pesos for pad of paper. How much was left?
9. Mark caught 3 fishes and the weights were $11\frac{1}{2}$ kgs. The first fish weighs $2\frac{1}{3}$ kgs and the second weighs $4\frac{1}{4}$ kgs. What was the weight of the last fish caught?
10. Benjie required his worker to work for 8 hours a day in his garden. His worker works only for $3\frac{1}{4}$ hours every morning and $2\frac{1}{3}$ hours every afternoon. How many more hours does his worker work to complete the 8 hours each day?

Lesson 78: Simplifying the factors before multiplying by cancellation method.
(Competency I.2)

Exercise Set A

Direction: Cancel the factors, if possible, then multiply the equations. Reduce all answers to the lowest terms.

1) $\frac{2}{4} \times \frac{2}{3} =$

2) $\frac{1}{8} \times \frac{2}{5} =$

3) $\frac{4}{6} \times \frac{4}{4} =$

4) $\frac{3}{6} \times \frac{2}{9} =$

5) $\frac{1}{10} \times \frac{2}{5} =$

6) $\frac{3}{5} \times \frac{5}{15} =$

7) $\frac{4}{12} \times \frac{2}{8} =$

8) $\frac{6}{7} \times \frac{1}{8} =$

9) $\frac{9}{12} \times \frac{3}{3} =$

10) $\frac{6}{20} \times \frac{10}{12} =$

Exercise Set B

Direction: Cancel the factors, if possible, then multiply the equations. Reduce all answers to the lowest terms.

1) $\frac{4}{10} \times \frac{2}{5} =$

2) $\frac{6}{8} \times \frac{2}{9} =$

3) $\frac{2}{7} \times \frac{1}{6} =$

4) $\frac{3}{8} \times \frac{1}{6} =$

5) $\frac{4}{9} \times \frac{3}{4} =$

6) $\frac{6}{15} \times \frac{5}{15} =$

7) $\frac{6}{8} \times \frac{2}{4} =$

8) $\frac{3}{5} \times \frac{15}{18} =$

9) $\frac{9}{10} \times \frac{6}{9} =$

10) $\frac{3}{12} \times \frac{5}{6} =$

Lesson 79: Change mixed numbers and whole numbers to improper fractions before multiplying.

(Competency I. 3.1)

Exercise Set A

Directions: Solve for the product of the following equations then reduce all answers to lowest terms.

1) $1\frac{1}{2} \times \frac{4}{5} =$

6) $5\frac{1}{6} \times 2\frac{1}{6} =$

2) $1\frac{9}{10} \times \frac{3}{4} =$

7) $4\frac{3}{8} \times 3\frac{1}{5} =$

3) $1\frac{1}{5} \times \frac{2}{3} =$

8) $8\frac{2}{3} \times 2\frac{2}{14} =$

4) $6\frac{2}{3} \times \frac{2}{4} =$

9) $5\frac{4}{7} \times 3\frac{2}{3} =$

5) $9\frac{1}{5} \times \frac{3}{12} =$

10) $27\frac{2}{4} \times 15\frac{1}{10} =$

Exercise Set B

Directions: Solve for the product of the following equations then reduce all answers to lowest terms.

1) $1\frac{1}{2} \times \frac{2}{3} =$

6) $2\frac{1}{5} \times 3\frac{1}{7} =$

2) $\frac{2}{5} \times 2\frac{1}{3} =$

7) $3\frac{1}{7} \times \frac{2}{3} =$

3) $8\frac{1}{5} \times 1\frac{4}{5} =$

8) $1\frac{2}{3} \times \frac{1}{3} =$

4) $2\frac{3}{4} \times \frac{1}{4} =$

9) $2\frac{3}{4} \times 1\frac{8}{10} =$

5) $\frac{1}{3} \times 5\frac{1}{2} =$

10) $12\frac{1}{2} \times 3\frac{1}{3} =$

Lesson 80: Identify the reciprocal of a given number.
(Competency I. 4.2)

Exercise Set A

Directions: Give the reciprocal of the following numbers

1) $\frac{5}{6}$

6) $\frac{3}{8}$

2) $\frac{8}{12}$

7) $\frac{6}{12}$

3) $\frac{15}{10}$

8) $\frac{40}{25}$

4) $\frac{3}{6}$

9.) $\frac{7}{1}$

5) $\frac{14}{1}$

10) $\frac{45}{3}$

Exercise Set B

Direction: Give the reciprocal of the following numbers

1) $\frac{7}{3}$

6) $\frac{1}{6}$

2) $\frac{3}{5}$

7) $\frac{8}{10}$

3) $\frac{9}{4}$

8) $\frac{5}{15}$

4) $\frac{15}{3}$

9) $1\frac{2}{5}$

5) $\frac{12}{2}$

10) $3\frac{1}{3}$

Lesson 81: Writing an equation for a word problem involving multiplication of fractions.
(Competency I. 5.1)

Exercise Set A

Direction: Read the word problems below, then analyze and write an equation for each word problem. Write your answers on your notebook.

1. Ysay bought 6 packages of sugar. If each package weighed $1\frac{1}{2}$ kilograms, how many kilograms of sugar did she buy in all?
2. Aling Leona can sew a dress in $4\frac{1}{4}$ hours. If it takes her $\frac{2}{3}$ as long to sew a skirt, how many hours does it take her to sew a skirt?
3. Liza uses $1\frac{1}{8}$ teaspoon of salt for every kilogram of ground pork. How many teaspoon of salt will she use for $2\frac{2}{3}$ kilograms of ground pork?
4. Linda baked a cake in $1\frac{1}{4}$ hours. Preparing the ingredients took up $\frac{4}{5}$ hour of this time. How long did it take her to prepare the ingredients?
5. A bibingka recipe uses $1\frac{2}{3}$ cups of flour. How much flour will Zeny need to prepare $3\frac{4}{5}$ times of the recipe?
6. For each day of the week, Jessa spends $3\frac{3}{4}$ hours helping in the family store. How many hours does she work in a week?
7. A truck can travel $12\frac{1}{2}$ kilometers in one hour. How far can it travel in $3\frac{1}{2}$ hours?
8. If $\frac{1}{10}$ of 360 eggs were found to be rotten, how many rotten eggs were there?
9. At $2\frac{2}{3}$ kilometers per hour, how far can a boy scout hike in $3\frac{1}{2}$ hours?
10. Mr. Martin repaired two tricycles in $2\frac{1}{4}$ hours. He spent $\frac{1}{2}$ of the time greasing the wheels. How many hours did it take him to grease the wheels?

Lesson 81: Writing an equation for a word problem involving multiplication of fractions.
(Competency I. 5.1)

Exercise Set B

Direction: Read the word problems below, then analyze and write an equation for each word problem. Write your answers on your notebook.

1. Yolly bought 7 packages of sugar. If each package weighed $2\frac{1}{2}$ kilograms, how many kilograms of sugar did she buy in all?
2. Aling Mila can sew a dress in $3\frac{1}{2}$ hours. If it takes her $\frac{4}{5}$ long to sew a skirt, how many hours does it take her to sew a skirt?
3. Alma uses $1\frac{1}{4}$ teaspoon of salt for every kilogram of ground pork. How many teaspoon of salt will she use for $2\frac{2}{4}$ kilograms of ground pork?
4. Dolly baked a cake in $1\frac{1}{3}$ hours. Preparing the ingredients took up $\frac{4}{5}$ hours of this time. How long did it take her to prepare the ingredients?
5. A bibingka recipe uses $1\frac{3}{4}$ cups of flour. How much flour will Arlene need to prepare $5\frac{4}{5}$ times of the recipe?
6. For each day of the week, Shaira spends $4\frac{1}{5}$ hours helping in the family store. How many hours does she work in a week?
7. A truck car travels $24\frac{1}{2}$ kilometers in one hour. How far can it travel in $4\frac{2}{3}$ hours?
8. If $\frac{1}{5}$ of 380 eggs were found to be rotten, how many rotten eggs were there?
9. At $3\frac{1}{4}$ kilometers per hour, how far can a boy scout hike in $4\frac{1}{3}$ hours?
10. Mr. Reyes repaired two tricycles in $2\frac{2}{3}$ hours. He spent $\frac{1}{4}$ of the time greasing the wheels. How many hours did it take him to grease the wheels?

Lesson 82: Make drawing / diagram to understand better the given problem.
(Competency I. 5.2)

Exercise Set A

Direction: Read the word problems below then analyze and solve by using a drawing. Do your drawings on your notebook.

1. A container is to be filled with 5 liters full of water. It takes 1 minute to fill in $\frac{2}{10}$. How long will it take to fill the container?
2. Rosa took 3 hours to finish her assignment. If she spent $\frac{1}{3}$ of an hour for each assignment, how many assignments did she have?
3. Luz has 3 kilograms of flour. She used $\frac{1}{5}$ kilogram for every recipe that she prepared. How many recipes did she prepare?
4. Angie has 7 meters of ribbon. She used $\frac{1}{2}$ meters for every gift box she made. How many gift boxes can she make from the ribbon?
5. How many $\frac{1}{4}$ meter of plastic string can be cut from 5-meter roll of plastic?
6. How many questions can be answered in 10 minutes if Dina answers every question for $\frac{1}{4}$ minute?

Lesson 82: Make drawing / diagram to understand better the given problem.
(Competency I. 5.2)

Exercise Set B

Direction: Read the word problems below then analyze and solve by using a drawing. Do your drawings on your notebook.

1. A container is to be filled with 3 liters full of water. It takes 1 minute to fill in $\frac{2}{10}$. How long will it take to fill the container?
2. Risa took 2 hours to finish her assignment. If she spent $\frac{1}{3}$ of an hour for each assignment, how many assignments did she have?
3. Linda has 4 kilograms of flour. She used $\frac{1}{5}$ kilogram for every recipe that she prepared. How many recipes did she prepare?
4. Elsa has 3 meters of ribbon. She used $\frac{2}{6}$ meters for every gift box she made. How many gift boxes can she make from the ribbon?
5. How many $\frac{1}{4}$ meter of plastic string can be cut from 6 meter roll of plastic?
6. How many questions can be answered in 3 minutes if Dyna answers every question for $\frac{1}{4}$ minute?

Lesson 83: Solving word problems involving multiplication of number in mixed form.
(Competency I. 5.3)

Exercise Set A

Direction: Read the word problems below then analyze and solve each problem. Write your answers on your notebook.

1. Ed can weave $5\frac{1}{2}$ baskets in a day. How many baskets can he weave in $4\frac{2}{3}$ days?
2. Arlene filled the water jug with $7\frac{1}{4}$ pitchers of pineapple juice. If each pitcher holds $9\frac{1}{3}$ glasses of water, how many glasses of pineapple juice are there in the water jug?
3. Mother uses $2\frac{2}{3}$ bars of laundry soap to wash a dozen of pants. How many bars of soap are needed to wash $5\frac{3}{4}$ dozens of pants?
4. There are $4\frac{2}{5}$ weeks in January. At the rate of $3\frac{2}{3}$ kgs of sugar per week, how much will a family use for the month of January?
5. A jeep travel at a speed of $21\frac{2}{3}$ kilometers per hour. How far can it travel in $4\frac{1}{2}$ hours?
6. Phoebe, a sales girl, sold $24\frac{1}{2}$ boxes of soap in a day. How many kilograms of soap did she sell if a box weighed $18\frac{1}{5}$ kilograms?
7. Flora's refrigerator uses up about $7\frac{1}{2}$ kwh in one day. How many kwh will the refrigerator consume for $20\frac{1}{2}$ days?
8. An automobile travels at a speed of $3\frac{1}{3}$ kilometers per hour. How far can it travel in $4\frac{1}{4}$ hours?
9. Gina sold $55\frac{1}{3}$ kilograms of refined sugar in one month. How many kilograms of sugar can she sell in $4\frac{1}{2}$ months?
10. Rica baked $9\frac{1}{2}$ dozens of muffins in a day. How many dozens of muffins will she bake for $3\frac{1}{4}$ days?

Lesson 83: Solving word problems involving multiplication of number in mixed form.
(Competency I. 5.3)

Exercise Set B

Direction: Read the word problems below then analyze and solve each problem. Write your answers on your notebook.

1. Edmund can weave $4\frac{1}{2}$ baskets in a day. How many baskets can he weave in $3\frac{4}{5}$ days?
2. Myrna filled the water jug with $6\frac{1}{2}$ pitchers of pineapple juice. If each pitcher holds $8\frac{1}{3}$ glasses of water, how many glasses of pineapple juice are there in the water jug?
3. Mother uses $1\frac{2}{6}$ bars of laundry soap to wash a dozen of pants. How many bars of soap are needed to wash $4\frac{3}{4}$ dozens of pants?
4. There are $4\frac{3}{7}$ weeks in January. At the rate of $2\frac{1}{2}$ kgs of sugar per week, how much will a family use for the month of January?
5. A jeep travel at a speed of $19\frac{3}{4}$ kilometers per hour. How far can it travel in $2\frac{1}{2}$ hours?
6. Anne, a sales girl, sold $18\frac{1}{2}$ boxes of soap in a day. How many kilograms of soap did she sell if a box weighed $23\frac{3}{4}$ kilograms?
7. Flor's refrigerator uses up about $6\frac{1}{2}$ kwh in one day. How many kwh will the refrigerator consume for $18\frac{3}{4}$ days?
8. An automobile travels at a speed of $2\frac{5}{10}$ kilometers per hour. How far can it travel in $3\frac{1}{5}$ hours?
9. Elisa sold $54\frac{3}{4}$ kilograms of refined sugar in one month. How many kilograms of sugar can she sell in $3\frac{1}{2}$ months?
10. Lorie baked $6\frac{2}{3}$ dozens of muffins in a day. How many dozens of muffins will she bake for $3\frac{1}{2}$ days?

Lesson 84: Solve 2 to 3 step word problems involving addition, subtraction and multiplication of numbers in mixed forms. (Competency I. 5.4)

Exercise Set A

Direction: Read the word problems below, then analyze and solve each word problem. Write your answers on your notebook.

1. Joy earned Php 910 in $3\frac{1}{2}$ days. How much money does she earn in $\frac{1}{2}$ day?
2. Cora mixed $8\frac{1}{5}$ liters of water and $2\frac{1}{5}$ liters of vinegar. If she used $7\frac{4}{5}$ for her experiment, how much of the mixture was left?
3. Dante gathered $3\frac{1}{2}$ kilos of guava on Monday and $1\frac{1}{2}$ kilos on Tuesday. If he has three friends to share the guavas with and wants to give $\frac{3}{4}$ kilos each, how many kilos of guavas will be left?
4. Joan read $12\frac{1}{2}$ pages in 4 minutes while Lea reads $9\frac{3}{4}$ pages in 4 minutes. Who reads faster and by how much faster?
5. Mother bought $12\frac{1}{2}$ kilos of sugar for P350. if she in turn sold the sugar for Php15 per half kilo, how much did she earn?
6. Father owns a $\frac{5}{7}$ -hectare of land. He gave $\frac{1}{2}$ of it to his son and $\frac{1}{4}$ to his daughter. What part of the land was left?
7. Aling Nena bought $1\frac{1}{4}$ kilos of beef at P180 per kilo and $2\frac{1}{2}$ kilos of pork at P150 per kilo. She gave the seller a P1, 000 bill. How much change did she receive?
8. Rosie was given a 10-item test. If she finished $\frac{9}{10}$ of the questions and answered these correctly, how many items did she answer incorrectly?
9. Mother has $10\frac{1}{2}$ kilos of flour. She used $\frac{3}{5}$ of it for the chicken breading and $\frac{1}{3}$ of it for the sauce. What part of the flour was left?
10. Mr. Carlos jogged $1\frac{1}{5}$ km everyday for a week. Then on the second week he increased the distance by $\frac{1}{5}$ km. find the total distance he jogged in two weeks.

Lesson 84: Solve 2 to 3 step word problems involving addition, subtraction and multiplication of numbers in mixed forms. (Competency I. 5.4)

Exercise Set B

Direction: Read the word problems below, then analyze and solve each word problem. Write your answers on your notebook.

1. Jun earned Php 1,100 in $3\frac{1}{2}$ days. How much money does she earn in $\frac{1}{2}$ day?
2. Carla mixed $9\frac{1}{2}$ liters of water and $2\frac{1}{5}$ liters of vinegar. If she used $7\frac{4}{5}$ for her experiment, how much of the mixture was left?
3. Daniel gathered $4\frac{1}{2}$ kilos of guava on Wednesday and $2\frac{1}{2}$ kilos on Thursday. If he has three friends to share the guavas with and wants to give $\frac{3}{4}$ kilos each, how many kilos of guavas will be left?
4. Jinky read $13\frac{1}{2}$ pages in 5 minutes while Lou reads $9\frac{3}{4}$ pages in 5 minutes. Who reads faster and by how many?
5. Aling Elsa bought $15\frac{1}{2}$ kilos of sugar for P320. If she in turn sold the sugar for P14 per half kilo, how much did she earn?
6. Mr. Hernandez owns a $\frac{6}{7}$ -hectare of land. He gave $\frac{1}{3}$ of it to his son and $\frac{1}{5}$ to his daughter. What part of the land was left?
7. Aling Mona bought $1\frac{1}{5}$ kilos of beef at P180 per kilo and $2\frac{1}{3}$ kilos of pork at P150 per kilo. She gave the seller a P1, 000 bill. How much change did she receive?
8. Rose was given a 15-item test. If she finished $\frac{8}{10}$ of the questions and answered these correctly, how many items did she answer incorrectly?
9. Monica has $12\frac{1}{2}$ kilos of flour. She used $\frac{4}{5}$ of it for the chicken breading and $\frac{1}{3}$ of it for the sauce. What part of the flour was left?
10. Mr. Gonzales jogged $1\frac{1}{5}$ km everyday for a week. Then on the second week he increased the distance by $\frac{1}{5}$ km. find the total distance he jogged in two weeks.

**Lesson 85: Describe the answers in a complete sentence with proper labels/units.
(Competency I. 5.5)**

Exercise Set A

Direction: Read, analyze and solve the following word problems. Remember to use the correct order of operations. Label your answers properly. Write your answers in your notebook.

1. Susie receives an allowance of P380 every week. If she saves $\frac{2}{5}$ of it, how much does she save in a week?
2. A house painter finished painting $\frac{3}{4}$ of $\frac{2}{3}$ of a house. What part of the entire house had been painted?
3. Mr. Andaya weighs $4\frac{2}{5}$ kg times as much as his son who weighs $20\frac{5}{6}$. How much does Mr. Andaya weigh?
4. In a class of 45 grade six pupils, $\frac{1}{5}$ joined the Math Club. How many pupils joined the Math Club?
5. Shiena reads $11\frac{1}{2}$ pages of book everyday. How many pages would she have read in 5 days?
6. John Jeremy burns $9\frac{1}{2}$ calories per minute while jogging. How many calories does he burn if he jogs for $6\frac{3}{4}$ minutes?
7. A clothing material costs Php115 per meter. How much does $3\frac{1}{3}$ m of this clothing material cost?
8. My brother has a collection of 580 stamps. Two-thirds of these stamps are from the Europe. How many are European stamps?
9. Rosanna spends $\frac{5}{6}$ of an hour working with her Math homework. How many minutes does she spend on her Math homework?
10. Mr. Javier earns Php 20000 a month. He allots $\frac{1}{8}$ of this for his gasoline allowance. How much is his gasoline allowance?

Lesson 85: Describe the answers in a complete sentence with proper labels/units.
(Competency I. 5.5)

Exercise Set B

Direction: Read, analyze and solve the following word problems. Remember to use the correct order of operations. Label your answers properly. Write your answers in your notebook.

1. Suzette receives an allowance of P580 every week. If she saves $\frac{2}{5}$ of it, how much does she save in a week?
2. A house painter finished painting $\frac{3}{4}$ of $\frac{4}{6}$ of a house. What part of the entire house had been painted?
3. Mr. Dela Cruz weighs $3\frac{1}{5}$ kg times as much as his son who weighs $15\frac{2}{6}$. How much does Mr. Dela Cruz weigh?
4. In a class of 50 grade six pupils, $\frac{2}{5}$ joined the Science Club. How many pupils joined the Science Club?
5. Shara reads $9\frac{1}{2}$ pages of book everyday. How many pages would she have read in 6 days?
6. Junior burns $8\frac{1}{2}$ calories per minute while jogging. How many calories does he burn if he jogs for $5\frac{3}{4}$ minutes?
7. A clothing material costs P120 per meter. How much does $2\frac{3}{4}$ m of this clothing material cost?
8. My cousin has a collection of 500 stamps. Two-thirds of these stamps are from U.S.A. How many are U.S.A. stamps?
9. Rose spends $\frac{4}{6}$ of an hour working with her English homework. How many minutes does she spend on her English homework?
10. Mr. Brown earns Php 25000 a month. He allots $\frac{1}{9}$ of this for his gasoline allowance. How much is his gasoline allowance?

Lesson 86: Mentally Solving division of a whole number by a fraction; a fraction by another fraction.

Exercise Set A

Directions: Mentally solve the following equations.

1. $2 \div \frac{1}{5} =$

2. $3 \div \frac{3}{4} =$

3. $5 \div \frac{5}{6} =$

4. $8 \div \frac{1}{4} =$

5. $10 \div \frac{1}{2} =$

6. $12 \div \frac{3}{4} =$

7. $9 \div \frac{1}{3} =$

8. $8 \div \frac{4}{5} =$

9. $\frac{2}{4} \div \frac{1}{6} =$

10. $\frac{5}{3} \div \frac{1}{3} =$

Exercise Set B

Directions: Mentally solve the following equations.

1. $3 \div \frac{1}{6} =$

2. $4 \div \frac{2}{5} =$

3. $\frac{2}{2} \div \frac{1}{3} =$

4. $\frac{5}{6} \div \frac{2}{4} =$

5. $6 \div \frac{2}{8} =$

6. $4 \div \frac{4}{5} =$

7. $\frac{2}{10} \div \frac{1}{10} =$

8. $\frac{4}{12} \div \frac{2}{3} =$

9. $5 \div \frac{5}{3} =$

10. $3 \div \frac{3}{6} =$

Lesson 87: Divide a whole number by a fraction by another fraction.
(Competency J. 2)

Exercise Set A

Directions: Solve the equations and reduce all quotients to lowest term.

1. $4 \div \frac{3}{3} =$

2. $7 \div \frac{4}{12} =$

3. $5 \div \frac{2}{6} =$

4. $8 \div \frac{2}{3} =$

5. $20 \div \frac{4}{8} =$

6. $\frac{5}{9} \div \frac{2}{3} =$

7. $\frac{4}{8} \div \frac{3}{4} =$

8. $\frac{9}{18} \div \frac{4}{6} =$

9. $1 \frac{5}{6} \div \frac{3}{4} =$

10. $2 \frac{1}{3} \div \frac{2}{4} =$

Exercise Set B

Directions: Solve the equations and reduce all quotients to lowest term.

1. $8 \div \frac{3}{5} =$

2. $3 \div \frac{2}{3} =$

3. $4 \div \frac{2}{7} =$

4. $6 \div \frac{3}{4} =$

5. $2 \div \frac{1}{8} =$

6. $\frac{5}{6} \div \frac{1}{3} =$

7. $\frac{7}{10} \div \frac{2}{5} =$

8. $\frac{9}{12} \div \frac{1}{6} =$

9. $1 \frac{2}{6} \div \frac{2}{5} =$

10. $2 \frac{1}{8} \div \frac{2}{8} =$

Lesson 88: Dividing fractions in different forms.
(Competency J. 3)

Exercise Set A

Directions: Solve for the quotient of the following equations then simplify your answers.

1. $\frac{4}{5} \div \frac{1}{2} =$

2. $3 \div \frac{2}{3} =$

3. $1\frac{3}{4} \div \frac{2}{3} =$

4. $\frac{2}{8} \div 2 =$

5. $\frac{3}{6} \div \frac{2}{3} =$

6. $\frac{5}{7} \div \frac{5}{9} =$

7. $\frac{4}{5} \div \frac{3}{4} =$

8. $\frac{6}{11} \div \frac{2}{5} =$

9. $2\frac{3}{4} \div \frac{1}{2} =$

10. $5\frac{1}{2} \div 2\frac{2}{5} =$

Exercise Set B

Directions: Solve for the quotient of the following equations then simplify your answers.

1. $4 \div \frac{2}{8} =$

2. $\frac{10}{12} \div 3 =$

3. $\frac{8}{10} \div \frac{1}{4} =$

4. $\frac{10}{20} \div \frac{2}{5} =$

5. $4\frac{5}{9} \div \frac{2}{3} =$

6. $2\frac{3}{8} \div \frac{1}{2} =$

7. $3\frac{4}{5} \div \frac{2}{4} =$

8. $5\frac{2}{3} \div \frac{4}{8} =$

9. $2\frac{3}{5} \div 2\frac{1}{4} =$

10. $2\frac{1}{9} \div 3\frac{1}{2} =$

Lesson 89: Write an equation to solve the word problem.
(Competency J. 4.1)

Exercise Set A

Directions: Read the problems. Write the equation then give the answer in simplest form. Write your answers in your notebook.

1. Louie drinks $\frac{2}{3}$ liter of milk each day. How long will he finish drinking 5 liters of milk?
2. Aiko brought $\frac{4}{5}$ of a cake to school. She divided it equally and shared all of it to her 3 friends. How much cake did each friend receive?
3. Donald was able to harvest $2\frac{1}{4}$ kg of tomatoes from each of 4 plots. Then he divided them equally into 6 piles. How many kilograms of tomatoes did each pile have?
4. Willie collected $6\frac{2}{3}$ pails of rainwater. He poured the water into 3 big containers, which he filled equally. How many pails of water did each container hold?
5. Mang Tonio caught $9\frac{1}{2}$ kg of fish. He took home $1\frac{1}{2}$ kg and equally sold the rest among his 4 neighbors. How many kilograms of fish did he sell to each neighbor?
6. Julie put $1\frac{1}{3}$ slices of cheese for every sandwich that she made. How many sandwiches did she make out of 12 slices of cheese?
7. Rose used $12\frac{4}{5}$ m of clothing material to make 8 pillowcases. How much material did she use for each pillowcase?
8. Lucy equally poured $\frac{4}{5}$ liter of lemonade into 6 cups. How much lemonade did each cup have?
9. Carlo spent $\frac{2}{5}$ of an hour solving 8 Math problems. What fraction of an hour did he spend solving each problem?
10. Miss Jimenez has $1\frac{3}{4}$ meters of cloth to make a skirt. Her skirt needs only $\frac{6}{7}$ meters. How many times bigger is the cloth than the actual skirt?

Lesson 89: Write an equation to solve the word problem.
(Competency J. 4.1)

Exercise Set B

Directions: Read the problems. Write the equation then give the answer in simplest form. Write your answers in your notebook.

1. Randy drinks $\frac{2}{3}$ liter of milk each day. How long will he finish drinking 6 liters of milk?
2. Hilda brought $\frac{4}{5}$ of a cake to school. She divided it equally and shared all of it to her 4 friends. How much cake did each friend receive?
3. Dondee was able to harvest $2\frac{1}{5}$ kg of tomatoes from each of 4 plots. Then he divided them equally into 5 piles. How many kilograms of tomatoes did each pile have?
4. Patrick collected $6\frac{1}{3}$ pails of rainwater. He poured the water into 4 big containers, which he filled equally. How many pails of water did each container hold?
5. Mang Herwin caught $10\frac{1}{2}$ kg of fish. He took home $1\frac{1}{2}$ kg and equally sold the rest among his 5 friends. How many kilograms of fish did he sell to each friend?
6. Mary Ann put $1\frac{1}{5}$ slices of cheese for every sandwich that she made. How many sandwiches did she make out of 14 slices of cheese?
7. Kristine used $13\frac{4}{5}$ m of clothing material to make 9 pillowcases. How much material did she use for each pillowcase?
8. Nenita equally poured $\frac{5}{6}$ liter of lemonade into 7 cups. How much lemonade did each cup have?
9. Rodrigo spent $\frac{3}{5}$ of an hour solving 9 Math problems. What fraction of an hour did he spend solving each problem?
10. Miss Hermano has $2\frac{3}{4}$ meters of cloth to make a skirt. Her skirt needs only $\frac{5}{7}$ meters. How many times bigger is the cloth than the actual skirt?

**Lesson 90: Solve word problems involving division of fractions.
(Competency J. 4.3)**

Exercise Set A

Direction: Read the problems. Solve and write all answers in lowest terms. Write your answers in your notebook.

1. Mrs. Valdez bought $2\frac{1}{2}$ kilos of grapes for her children. If she gave $\frac{1}{2}$ to each child, how many children were given grapes?
2. A bamboo stick $2\frac{1}{4}$ meters long has to be cut for a project into one-eighth meter. How many equal pieces will there be?
3. How many fifths are there in $5\frac{2}{3}$?
4. What is $\frac{3}{5}$ divided by $\frac{1}{2}$?
5. $\frac{6}{8}$ of the one hundred pupils joined the Math Club. If the members of the Math Club were grouped into three, how many members were in each group?
6. A crate of watermelon holds $20\frac{3}{4}$ kilograms. If the watermelon are placed in plastic bags each $1\frac{1}{2}$ kilograms, how many bags of watermelon are in the crate?
7. Kate bought $3\frac{2}{5}$ meters of cloth. She cut it into small pieces for her project. If each piece was $\frac{2}{5}$ meter long, how many pieces did she have?
8. Diana has $5\frac{2}{3}$ cups of flour for pancakes. If she uses $1\frac{1}{3}$ cups for every recipe, how many recipes of pancake can she prepare?
9. Mr. Gomez drove $3\frac{1}{5}$ kilometers for $2\frac{1}{2}$ hours. What is his average speed per hour?
10. Geronimo harvested $31\frac{3}{4}$ kilos of star apple. He placed them in plastic bags. If each bag had $1\frac{1}{2}$ kilos, how many bags of star apple did he have?

**Lesson 90: Solve word problems involving division of fractions.
(Competency J. 4.3)**

Exercise Set B

Direction: Read the problems. Solve and write all answers in lowest terms. Write your answers in your notebook.

1. Ellen uses $\frac{1}{3}$ kg of flour for a recipe of sponge cake. If she has $2\frac{4}{5}$ kg of flour, how many recipes of sponge cake can she make?
2. For a hand towel, Myrna uses $\frac{1}{4}$ meter of cloth. If she has $3\frac{4}{5}$ meters of cloth, how many hand towels can she make?
3. How many days will it take Mang Turing to plow his $5\frac{7}{8}$ hectares of land if he averages $1\frac{1}{4}$ hectares a day?
4. Justin cut a $12\frac{3}{4}$ meter long stick into seven equal parts. How long was each stick?
5. Mrs. Valencia uses $\frac{1}{8}$ kg of desiccated coconut for every dozen macaroons. How many dozen of macaroons can she prepare if she has $2\frac{1}{4}$ kg of desiccated coconut?
6. Father sold $\frac{5}{8}$ of his land. He divided the remaining part to his three children. What part of the land did each child get?
7. During a Christmas party, Mr. Dimal bought $2\frac{1}{3}$ kg of ponkans. If she gave $\frac{1}{18}$ kg each pupil, how many pupils received ponkan?
8. Jeffrey has $140\frac{1}{2}$ liters of water. He uses $10\frac{2}{3}$ liters everyday. How long will he be able to consume his water?
9. Kim has $1\frac{3}{4}$ liters of ice tea. If one serving is $\frac{3}{10}$ liters, how many servings of ice tea does she have?
10. Mother bought $20\frac{1}{5}$ kg of sugar. She repacked it in bags $2\frac{1}{2}$ kg each. How many bags of sugar did she pack?

**Lesson 91: Describe answers in a complete sentence with proper labels/units.
(Competency J. 4.5)**

Exercise Set A

Direction: Read, analyze and solve the following word problems. Label your answers properly. Write your answers in your notebook.

1. Angie has 27 meters of ribbon. She uses $1\frac{1}{2}$ meters for every box she makes. How many boxes can she make from the ribbon?
2. Rosa served $\frac{4}{5}$ of a pizza to her visitor. Each visitor was given $\frac{2}{5}$ of the pizza. How many visitors shared the pizza?
3. How many chocolate bars can be made of $2\frac{1}{4}$ cups of chocolate powder if each bar uses $\frac{1}{2}$ cup of chocolate powder?
4. An electric wire, $8\frac{1}{4}$ meters long, is to be cut into 7 equal pieces. How long will each piece be?
5. Leona made a trip of 108 kilometers in $2\frac{1}{4}$ hours. What was her average speed?
6. If a skirt requires $1\frac{1}{4}$ meters of cloth, how many skirts can be made from 21 meters of cloth?
7. A log $3\frac{3}{4}$ meters long will be cut into 5 equal pieces. How long will each piece be?
8. How many $\frac{2}{5}$ can you get from $\frac{4}{5}$?
9. Lea has $\frac{7}{8}$ of an egg pie. It will be divided equally among 4 persons, what part of the pie will one get?
10. A tailor has a bolt of cloth 50 meters long. If a uniform needs $2\frac{2}{3}$ meters of cloth, how many uniforms can he make from the cloth?

Lesson 91: Describe answers in a complete sentence with proper labels/units.
(Competency J. 4.5)

Exercise Set B

Direction: Read, analyze and solve the following word problems. Label your answers properly. Write your answers in your notebook.

1. Luisa has 30 meters of ribbon. She uses $1\frac{1}{3}$ meters for every box she makes. How many boxes can she make from the ribbon?
2. Jeanette served $\frac{3}{4}$ of a pizza to her friends. Each visitor was given $\frac{1}{4}$ of the pizza. How many visitors shared the pizza?
3. How many chocolate bars can be made of $3\frac{1}{4}$ cups of chocolate powder if each bar uses $\frac{1}{2}$ cup of chocolate powder?
4. An electric wire, $9\frac{1}{4}$ meters long, is to be cut into 6 equal pieces. How long will each piece be?
5. Linda made a trip of 112 kilometers in $2\frac{1}{2}$ hours. What was her average speed?
6. If a skirt requires $1\frac{1}{3}$ meters of cloth, how many skirts can be made from 25 meters of cloth?
7. A log $5\frac{3}{4}$ meters long will be cut into 6 equal pieces. How long will each piece be?
8. How many $\frac{3}{5}$ can you get from $\frac{7}{8}$?
9. Lolita has $\frac{9}{10}$ of an egg pie. It will be divided equally among 4 persons, what part of the pie will one get?
10. A tailor has a bolt of cloth 50 meters long. If a uniform needs $2\frac{1}{3}$ meters of cloth, how many uniforms can he make from the cloth?

Lesson 92: Reducing a ratio to lowest terms.
(Competency J. 1.1.1)

Exercise Set A

Directions: Express the given ratios in simplest forms or lowest terms.

1. 5:12

2. 6:18

3. 6:8

4. 10:5

5. 3:12

6. 12:18

7. 16:20

8. **21:7**

9. **42:6**

10. **20:80**

Exercise Set B

Directions: Express the given ratios in simplest forms or lowest terms.

1. 40:2

2. 15:60

3. 100:25

4. 8:40

5. 7:21

6. **6:24**

7. **8:32**

8. **3:30**

9. **90:45**

10. **22:66**

Lesson 93: Find a missing term in a proportion.
(Competency K. 1.2)

Exercise Set A

Directions: Solve for N to complete the proportion of the following items.

1. $3:6 = N:24$

2. $N:25 = 4:10$

3. $7:1 = N:3$

4. $2:16 = 7:N$

5. $1:4 = 2:N$

6. $\frac{11}{N} = \frac{1}{2}$

7. $7 \cdot \frac{1}{5} = \frac{5}{N}$

8. $8 \cdot \frac{3}{6} = \frac{9}{N}$

9. $9 \cdot \frac{1}{7} = \frac{9}{N}$

10. $10 \cdot \frac{15}{N} = \frac{5}{3}$

Exercise Set B

Directions: Solve for N to complete the proportion of the following items.

1. $N:10 = 10:100$

2. $4:7 = N:28$

3. $3:N = 9:30$

4. $5:9 = 11:N$

5. $45:36 = 5:N$

6. $\frac{11}{N} = \frac{1}{2}$

7. $\frac{1}{5} = \frac{5}{N}$

8. $\frac{3}{6} = \frac{9}{N}$

9. $\frac{1}{7} = \frac{9}{N}$

10. $\frac{15}{N} = \frac{9}{3}$

Lesson 94: Setting up a proportion for a given situation.
(Competency J. 2.1)

Exercise Set A

Directions: Read each problem. Write a ratio for each word problem.

1. In a tree-planting project, there are 5 girls for every 3 boys.
2. There are 10 ipil-ipil seedlings to 3 narra seedlings.
3. The ratio of trees to shrubs is 5:2.
4. The ratio of two numbers is 3:5. If the sum is 40, what is the smaller number?
5. A and B are in the ratio 2:3. Their sum is 20. What number is A?
6. The sum of 2 numbers is 30 and their ratio is 1:2. What is the bigger number?
7. Gino earned P720 for working 5 hours. If he works 9 hours, how much would he earn?
8. If 4 men can finish 25 desks in 7 days, how many days can 8 men finish the same number of desks?
9. A basket of food is sufficient to feed 10 persons for 3 days. How many days would it last for 5 persons?
10. If a dozen doughnuts cost P212, how much will 5 dozens of doughnuts cost?

Exercise Set B

Directions: Read each problem. Write a ratio for each word problem.

1. Three mango seedlings cost P20.
2. Fifteen seedlings can be planted in 2 hours.
3. The ratio of 2 triangles is 2:3. Find each side of the larger triangle?
4. The bigger number is twice the smaller number and their sum is 15. What are these numbers?
5. Three numbers are in the ratio 1:2:3 and their sum is 18. What is the smallest number?
6. A car travels 245 km in 12 days. At this rate, how far will it travel in 24 days?
7. If 6 men can plow a field in 2 days, how long will 3 men do it?
8. A car of dog food can feed 7 dogs for 5 days. How long will it feed 10 dogs?
9. A stock of food is enough to feed 30 orphans for 12 days. How many days will the food last if 10 more orphans are added?
10. Mr. Roxas has enough money to pay 12 employees for 2 weeks. For how many days can he pay 15 workers at the same rate?

Lesson 95: Solve word problems with direct proportion.
(Competency K. 2.2.1)

Exercise Set A

Directions: Read, analyze and solve the following word problems. Label your answers properly. Write your answers in your notebook.

1. In a tree-planting project, there are 4 girls for every 3 bags. How many bags are there if there are 12 girls?
2. There are 10 Ipil-ipil seedlings to 3 Narra seedlings. There are 12 Narra seedlings for _____ Ipil-ipil seedlings.
3. The ratio of trees to shrubs is 5:2. How many shrubs are there for 30 trees?
4. Three santol seedlings cost Php20.00. Twelve santol seedlings cost _____.
5. Fifteen seedlings can be planted in 2 hours. At this rate, how many seedlings can be planted in 6 hours?
6. A jeepney driver uses 25 liters of gasoline in 3 weeks. How many liters of gasoline can he use in 6 weeks?
7. A fast vehicle travels 390 km in 3 hours. At this rate, how far will it travel in 9 hours? _____
8. The bus fare for an 80 km trip is P65. how much is the bus fare for a 320 km trip?
9. If 12 ball pens are bought for P45, how much will you pay for 20 ball pens at the same rate?
10. The ratio of two numbers is 3:5. if the larger number is 30, what is the smaller number?

Lesson 95: Solve word problems with direct proportion.
(Competency K. 2.2.1)

Exercise Set B

Directions: Read, analyze and solve the following word problems. Label your answers properly. Write your answers in your notebook.

1. The ratio of male to female students at a college is 7 to 5. How many female students are there if there are 350 male?
2. A car travels 275 miles in 5 hours. How far will it travel in 9 hours at the same speed?
3. A store has T-shirts for sale at '2 for P190.' At the same rate, what will 5 T-shirt cost?
4. It was found that a watch gains 2 minutes in 8 hours. How much will it gain in 2 days?
5. The ratio of Math books to Science books in a class is 8 to 5. how many Math books are there if there are 245 books in Science?
6. Two numbers have the ratio of 4:7. if their sum is 143, what are the numbers?
7. In a zoo there are 2 lions to every 5 monkeys. How many lions are there if the zoo has 45 monkeys?
8. Three candies cost Php 2.00. How many candies can be bought with P14.00?
9. Two friends invested P 625, 000 in a small business. If their capitals are in the ratio of 2:3, how much did each one invested?
10. A typist can finish a 300-word article in 6 minutes. At the same rate, how long will it take her to type a 4, 500 word report?

Lesson 96: Solve word problems with inverse proportion (Competency K. 2.2.3)

Exercise Set A

Directions: Read, analyze and solve the following word problems. Label your answers properly. Write your answers in your notebook.

1. If 4 men can finish 25 desks in 7 days, how many days can 8 men finish the same number of desks?
2. A basket of food is sufficient to feed 10 persons for 3 days. How many days would it last for 5 persons?
3. If 6 men can plow a field in 2 days. How long will 3 men do it?
4. If 60 trays are needed to pack 720 eggs in batches of 12, how many trays are needed if the eggs are packed in batches of 18.
5. I have enough money to have a vacation of 12 days, if I spend Php500 a day. For how many days will my money last if I decided to spend only P400 a day?
6. Four equal pumps can fill a tank in 42 minutes. How long will 6 pumps of the same kind fill the tank?
7. Three similar lamps use 4 liters of oil in 80 hours. How much oil will 6 lamps of the same kind use in 40 hours?
8. A stock of food is enough to feed 30 orphans for 12 days. How many days will the food last if 10 more orphans are added?
9. Twenty-four trays are needed to pack 360 eggs in batches of 10. How many trays are needed if the eggs are packed in batches of 15.
10. It takes 3 salesmen 8 days to sell 5, 000 boxes of soap. If 2 more salesmen are added, how long will it take them?

**Lesson 96: Solve word problems with inverse proportion
(Competency K. 2.2.3)**

Exercise Set B

Directions: Read, analyze and solve the following word problems. Label your answers properly. Write your answers in your notebook.

1. If 5 men can finish 25 desks in 7 days, how many days can 10 men finish the same number of desks?
2. A basket of food is sufficient to feed 15 persons for 3 days. How many days would it last for 10 persons?
3. If 9 men can plow a field in 4 days. How long will 6 men do it?
4. If 80 trays are needed to pack 720 eggs in batches of 14, how many trays are needed if the eggs are packed in batches of 20.
5. I have enough money to have a vacation of 15 days. if I spend Php600 a day. For how many days will my money last if I decided to spend only Php500 a day?
6. Four equal pumps can fill a tank in 45 minutes. How long will 8 pumps of the same kind fill the tank?
7. Four similar lamps use 6 liters of oil in 80 hours. How much oil will 8 lamps of the same kind use in 40 hours?
8. A stock of food is enough to feed 40 orphans for 15 days. How many days will the food last if 10 more orphans are added?
9. Twenty-five trays are needed to pack 360 eggs in batches of 12. How many trays are needed if the eggs are packed in batches of 15.
10. It takes 5 salesmen 6 days to sell 5, 000 boxes of soap. If 2 more salesmen are added, how long will it take them?

Lesson 97: Giving the meaning of the elements (Rate, Base, Percentage) used in solving percentage problems. Determining the percentage, rate or base in a given problem or equation. (Competency L. 1.2)

Exercise Set A

Directions: Fill in the blanks with the correct answer.

1. The quantity which is compared to 100 is called _____.
2. The element which refers to the quantity that represents the whole is called _____.
3. If we are looking for the quantity which is a part of a base, that means we are solving for the _____.
4. 25 % of 80 is 20. _____ is the rate.
5. 37 is 50 % of 74. _____ is the base.
6. 60 % of 50 is 30. _____ is the percentage.
7. 40 is 20 % of 200. _____ is the base.
8. 15 is 12 % of 125. _____ is the rate.
9. 10 % of 250 is 25. _____ is the percentage.
10. 30 % of 90 is 27. _____ is the base.

Lesson 97: Giving the meaning of the elements (Rate, Base, Percentage) used in solving percentage problems. Determining the percentage, rate or base in a given problem or equation. (Competency L. 1.2)

Exercise Set B

Direction: Complete the table by identifying the rate, base and percentage of the following items.

	Rate	Base	Percentage
1. 20% of 15 is 3			
2. 60 is 20% of 300			
3. 48 is 40% of 120			
4. 8% of 1,200 is 96			
5. P100 is 4% of P2,500			
6. 180% of 200 is 360			
7. 80% of 35 is 28			
8. 25% of 36 is 9			
9. 75% of 60 is 45			
10. 460 is 20% of 2, 300			

**Lesson 98: Set up an equation or proportion to solve problems.
(Competency L. 3.1)**

Exercise Set A

Direction: Read each word problem below, and then write an equation to solve for the answer. Write your answers in your notebook.

1. A tree cast a shadow of 12 meters when a 5-meter pole casts a shadow of 4 meters. How tall is the tree?
2. For 5 hotcakes, 2 tablespoons of sugar are needed. How many tablespoons are needed to make 25 hotcakes?
3. What number if compared to 10 is the same 28 compared to 5?
4. Six compared to 11 is the same as 84 compared to what numbers?
5. A motorist traveled 240 km in 3 hrs. At the same time, how long will it take to travel 400 km?
6. A scale 3.5 cm on a map represents an actual distance of 175 km. What actual distance does a scale of 5.7 represent?
7. Roy and Nel sell newspapers on Saturday to earn extra money. For every 3 newspaper that Roy sells, Nell sells 5. If Roy sold 15 newspapers, how many did Nel sell?
8. A motorist travels 275 km in 5 hours. How far can he travel in 9 hours at the same speed?
9. Two buses can transport 130 people. How many buses are needed to transport 780 people?
10. The scale of a road map is 1cm to 50 km. How far apart are 2 towns represented on the road map by 4cm?

**Lesson 98: Set up an equation or proportion to solve problems.
(Competency L. 3.1)**

Exercise Set B

Direction: Read each word problem below, and then write an equation to solve for the answer. Write your answers in your notebook.

1. A tree cast a shadow of 15 meters when a 9-meter pole casts a shadow of 6 meters. How tall is the tree?
2. For 8 hotcakes, 3 tablespoons of sugar are needed. How many tablespoons are needed to make 32 hotcakes?
3. What number if compared to 12 is the same 28 compared to 6?
4. Eight compared to 12 is the same as 6 compared to what number?
5. A motorist traveled 250 km in 5 hrs. At the same time, how long will it take to travel 500 km?
6. A scale 4 cm on a map represents an actual distance of 160 km. What actual distance does a scale of 5 represent?
7. Rudy and Victor sell newspapers on Friday to earn extra money. For every 8 newspaper that Rudy sells, Victor sells 15. If Victor sold 30 newspapers, how many did Rudy sell?
8. A motorist travels 280 km in 5 hours. How far can he travel in 10 hours at the same speed?
9. Three buses can transport 195 persons. How many buses are needed to transport 780 people?
10. The scale of a road map is 2cm to 50 km. How far apart are 2 towns represented on the road map by 4cm?

Lesson 99: Finding the percentage when the rate and base are given.
(Competency L. 3.2.1)

Exercise Set A

Directions: Complete the table by identifying the percentage of the following items.

Rate	Base	Percentage
1. 25%	40	
2. 10%	120	
3. 15%	125	
4. 20%	300	
5. 50%	780	
6. 75%	550	
7. 80%	175	
8. 90%	210	
9. 42%	436	
10. 56%	741	

Exercise Set B

Directions: Complete the table by identifying the percentage of the following items.

Rate	Base	Percentage
1. 5%	290	
2. 3%	325	
3. 18%	275	
4. 20%	250	
5. 45%	826	
6. 30%	900	
7. 100%	675	
8. 72%	896	
9. 95%	3, 100	
10. 80%	5, 850	

Lesson 100: Find the rate or percent when the percentage and base are given.
(Competency L. 3.2.2)

Exercise Set A

Direction: Solve for the rate/percentage of each word problem.

1. What percent of an hour is 30 minutes?
2. 80 is what percent of 50?
3. N% of 120 is 24?
4. 75 minutes is what % of an hour?
5. 16 months is what % of a year?
6. 30 roses are what percent of a dozen?
7. What percent of a kilometer is 750 meters?
8. We go to school 5 days a week. What percent of the week don't we go to school?
9. Ana saved P850 and Celia saved P1,000 a week. What percent of Celia's saving is Ana's?
10. A factory has 350 workers of which there are 40 more women than men. What percent of the factory workers are women?

Exercise Set B

Direction: Solve for the rate/percentage of each word problem.

1. What percent of an hour is 45 minutes?
2. 65 is what percent of 50?
3. N percent of 150 is 30.
4. 83 minutes is what percent of an hour?
5. 20 months is what percent of a year?
6. What percent of a dozen is 28 roses?
7. What percent of kilometer is 1, 200 meters?
8. We go to school 5 days a week. What percent of the week do we go to school?
9. Jem saved P350 and Jun P800 a week. What percent of Jun's savings is Jem?
10. A factory has 350 workers of which there are 40 more women than men. What percent of the factory workers are men?

Lesson 101: Finding the base when the percentage or rate is given.
(Competency L. 3.2.3)

Exercise Set A

Directions: Solve correctly then match the problems with the answers. Write the letter of your answer on the blank before each number.

- | | |
|-------------------------|--------|
| ____ 1) 5% of N = .75 | a. 300 |
| ____ 2) 8% of N = 24 | b. 200 |
| ____ 3) 2% of N = .6 | c. 400 |
| ____ 4) 15% of N = 30 | d. 15 |
| ____ 5) 34% of N = 17 | e. 40 |
| ____ 6) 80% of N = 32 | f. 500 |
| ____ 7) 55% of N = 220 | g. 680 |
| ____ 8) 20% of N = 100 | h. 50 |
| ____ 9) 25% of N = 170 | i. 900 |
| ____ 10) 75% of N = 675 | j. 30 |
| | k. 20 |

Exercise Set B

Directions: Solve correctly then match the problems with the answers. Write the letter of your answer on the blank before the number.

- | | |
|---------------------------|--------|
| ____ 1) 2% of N = .36 | a. 56 |
| ____ 2) 4% of N = 2. 24 | b. 95 |
| ____ 3) 6% of N = 5.1 | c. 218 |
| ____ 4) 8% of N = 7.6 | d. 375 |
| ____ 5) 12% of N = 12.6 | e. 550 |
| ____ 6) 14% of N = 30.52 | f. 85 |
| ____ 7) 16% of N = 60 | g. 880 |
| ____ 8) 18% of N = 86.4 | h. 990 |
| ____ 9) 22% of N = 121 | i. 105 |
| ____ 10) 24% of N = 237.6 | j. 480 |
| | k. 18 |

**Lesson 102: Compute common percentage mentally.
(Competency L.3.3)**

Exercise Set A

Directions: Solve for the percentage of each item below.

1. 100% of 25 _____
2. 75% of 40 _____
3. 25% of 20 _____
4. N is 20% of 25 _____
5. 5% of 80 is N _____
6. 40% of 50 is N _____
7. N is 150% of 20 _____
8. What is 75% of 12? _____
9. N is 200% of 60 _____
10. What is 25% of 24 _____

Exercise Set B

Directions: Solve for the percentage of each item below.

1. 100% of 15 _____
2. 75% of 38 _____
3. 25% of 30 _____
4. N is 20% of 30 _____
5. 5% of 70 is N _____
6. 40% of 60 is N _____
7. N is 150% of 30 _____
8. What is 75% of 20? _____
9. N is 200% of 80 _____
10. What is 25% of 50 _____

Lesson 103: Solve word problems involving commission, rate of commissions, total sales and total income.
(Competency L. 3.4.2)

Exercise Set A

Directions: Read each given problem. Analyze and solve each problem below. Write your answers in your notebook.

1. For selling P350 worth of newspaper, Cherry was given P80 as her commission. What percent is her commission?
2. Mr. Galang commission rate is 10%. Last month he received P9, 350 as commission for his sales. What was his total sale last month?
3. Ruffa received a 20% commission for every item, which she sold for P75 each. If she sold 124 items, how much was her commission?
4. Liza bought green mangoes at P25 a dozen. She sold them at 4 for P15. If she sold 8 dozens, what percent is her profit?
5. A merchant had P260000 invested in a business. After one year, he found that he had gained 35% on his investment. How much did he gain?
6. Mr. Lozada's income was P2,500 per week. He received an increased of P125. What is the percent of increase?
7. A salesman commission rate is 15%. What is the commission from the sale of P40200 worth of assorted items?
8. A real estate agency charges a 7% commission rate. If the agency sells the Rodriguez' house for P850 000, how much commission must the Rodriguez pay to the agency?
9. Mrs. Ponce earned P25 800 as commission. If she works on a commission rate of 12%, what was her total sale?
10. Wilma has a salary scheme of P18 500 a month plus 10% on her sales. If her sales amounted to P120 000, how much did she earn in all?

Lesson 103: Solve word problems involving commission, rate of commissions, total sales and total income.
(Competency L. 3.4.2)

Exercise Set B

Directions: Read each given problem. Analyze and solve each problem below. Write your answers in your notebook.

1. For selling P450 worth of newspaper, Dory was given P75 as her commission. What percent is her commission?
2. Mr. Manalang's commission rate is 10%. Last month he received P9, 500 as commission for his sales. What was his total sale last month?
3. Jessica received a 15% commission for every product, which she sold for P85 each. If she sold 124 items, how much was her commission?
4. Lina bought apple mangoes at P30 a dozen. She sold them at 4 for P20. If she sold 8 dozens, what percent is her profit?
5. A business had P250, 000 invested in a business. After one year, he found that he had gained 30% on his investment. How much did he gain?
6. Mr. Rebanal's income was P2, 600 per week. He received an increased of P125. What is the percent of increase?
7. A saleslady commission rate is 20%. What is the commission from the sale of P40, 500 worth of assorted items?
8. A real estate agency charges a 9% commission rate. If the agency sells the Rodriguez' house for P820, 000, how much commission must the Rodriguez pay to the agency?
9. Mrs. Salamanca earned P25, 500 as commission. If she works on a commission rate of 14%, what was her total sale?
10. Tess has a salary scheme of P19, 000 a month plus 10% on her sales. If her sales amounted to P130, 000, how much did she earn in all?

Lesson 104: Solve word problems involving simple interest, principal, rate and time.
(Competency L. 3.4.4)

Exercise Set A

Directions: Read each given problem. Analyze and solve each problem below. Write your answers in your notebook.

1. At 8% interests per year, how much will a deposit of P3, 500 earn in 2 years?
2. How long will it take P5, 000 double to P10, 000 when interest rate is 5% a month?
3. Greg put P15, 000 into a savings account where the money earns 4% interests per year. How much interest will the money earn in one year?
4. Miss Norman borrowed P20, 000 for six months with a yearly interest of 15%. What was the interest of the loan?
5. Clara put P15, 000 into savings account in January. Six months later, she put P20, 000 more into the account. The interest rate is 6% per year. How much interest will be earned at the end of the year?
6. Mr. Ignacio paid a P1, 500 interests on P25, 000 that he borrowed for a period of 3 months. What was the monthly rate of interest?
7. Mr. Muli has P10, 000 invested in a cooperative that pays a 6% yearly interest. In how many years will his investment earn P3, 450?
8. Errol loaned Marvin some money at the rate of 7% interests per year when Marvin paid back the loan at the end of three years, he had to pay a P12, 000 interest. How much money did he borrow?
9. Janine's mother borrowed P35, 000 from a credit union. at the end of 2 years she paid back P38, 200. What was the rate of interest?
10. Mrs. Simon applied a loan of P50, 000 at a yearly interest of 10%. If she paid back the credit union of P65, 000, what is the time period of her loan?

Lesson 104: Solve word problems involving simple interest, principal, rate and time.
(Competency L. 3.4.4)

Exercise Set B

Directions: Read each given problem. Analyze and solve each problem below. Write your answers in your notebook.

1. At 9% interests per year, how much will a deposit of P3, 500 earn in 3 years?
2. How long will it take P4, 500 double to P9, 000 when interest rate is 5% a month?
3. Gorio put P14, 000 into a savings account where the money earns 5% interests per year. How much interest will the money earn in one year?
4. Mrs. Calma borrowed P25, 000 for six months with a yearly interest of 16%. What was the interest of the loan?
5. Claris put P20, 000 into savings account in January. Six months later, she put P25, 000 more into the account. The interest rate is 5% per year. How much interest will be earned at the end of the year?
6. Mr. Ignacio paid a P1, 300 interests on P20, 000 that he borrowed for a period of 3 months. What was the monthly rate of interest?
7. Mr. Muli has P10, 500 invested in a cooperative that pays a 5% yearly interest. In how many years will his investment earn P4, 800?
8. Enteng loaned Marcos some money at the rate of 8% interests per year when Marcos paid back the loan at the end of 4 years, he had to pay a P15, 000 interest. How much money did he borrow?
9. Gina's father borrowed P40, 000 from cooperative; at the end of 3 years he paid back P43, 500. What was the rate of interest?
10. Mrs. Pineda applied a loan of P40, 000 at a yearly interest of 9%. If she paid back the credit union of P58, 000, what is the time period of her loan?

Lesson 105: Making Simple Predictions.
(Competency M. 1)

Exercise Set A

Directions: Which of the following situations can be considered as unlikely to happen, likely to happen, equally likely to happen, impossible to happen, or certain to happen? Write your answer on the blank before each number.

- _____ 1. When one is lying down, he is sleeping.
- _____ 2. When the clouds are dark, it will rain.
- _____ 3. If you eat plenty of food, you are healthy.
- _____ 4. A butterfly can fly.
- _____ 5. All mountains have forest.
- _____ 6. The sun sets in the east.
- _____ 7. A pregnant woman with a big and round stomach may have a baby girl.
- _____ 8. An earthquake occurred. There will be a tsunami.
- _____ 9. The teacher is beautiful, so she is a very good teacher.
- _____ 10. The jeepney that runs is likely to meet an accident.

Exercise Set B

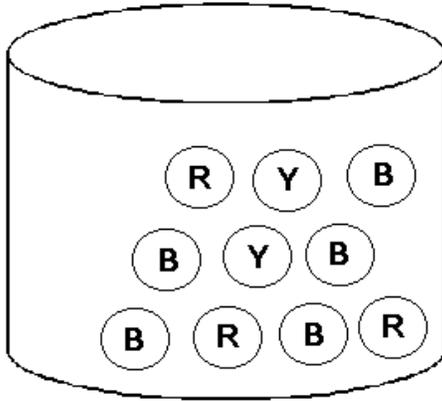
Directions: Which of the following situations can be considered as unlikely to happen, likely to happen, equally likely to happen, impossible to happen, or certain to happen? Write your answer on the blank before each number.

- _____ 1. Mark is thrifty. He will be rich someday.
- _____ 2. When a pupil is absent, he is sick.
- _____ 3. People living in the slum areas are poor.
- _____ 4. When the teacher is out, the class is noisy.
- _____ 5. Students prefer to have holidays than school days.
- _____ 6. Whales live in water, so they are classified as fish.
- _____ 7. The sun is the biggest star.
- _____ 8. When a pupil cleans the room, a visitor is coming.
- _____ 9. A frog can live both on land and in water.
- _____ 10. When a pupil is attentive in class, he can answer any questions.

Lesson 106: Tell the number of favorable outcomes/chances.
(Competency M.2)

Exercise Set A

Directions: Study the illustration below then answer the following questions that follow.



JAR WITH MARBLES

1. What is the probability of picking a yellow marble?

2. What is the probability of picking a red marble?

3. What is the probability of picking a blue marble?

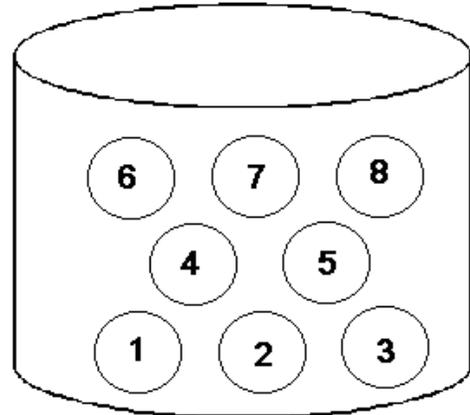
4. What is the probability of picking a yellow and red marble?

5. What is the probability of picking a blue and red marble?

6. What is the probability of picking a yellow and blue marble? _____

Exercise Set B

Directions: Study the illustration below then answer the following questions that follow.



THE CHIPS ARE PLACED IN A JAR AND MIXED

1. What is the probability of picking a chip with an even number? _____
2. What is the probability of picking a chip with an odd number? _____
3. What is the probability of picking a chip with the biggest number? _____
4. What is the probability of picking a chip with the smallest number? _____
5. What is the probability of picking a chip with a prime number? _____

Lesson 107: Visualizing integers in their order on a number line.
(Competency N. 1)

Exercise Set A

Directions: Identify the integer being described using the number line.



1. 2 units to the right of 0 _____
2. 10 units to the right of 4 _____
3. 7 units to the left of 0 _____
4. 6 units to the left of -1 _____
5. 1 units to the left of 6 _____
6. 5 units to the right of 9 _____
7. 3 units to the right of 10 _____
8. 5 units to the left of 4 _____
9. 8 units to the right of 12 _____
10. 6 units to the left of -3 _____

Lesson 107: Visualizing integers in their order on a number line.
(Competency N. 1)

Exercise Set B

Directions: Identify the integer being described using the number line.



1. The set of integers greater than -6 and less than 8 . _____
2. The set of integers greater than 0 and less than 10 . _____
3. The set of integers greater than -2 and less than 6 . _____
4. The set of integers greater than -8 and less than 2 . _____
5. The set of integers greater than negative 4 and less than 7 . _____
6. Between -4 and $+6$. _____
7. Between 0 and $+8$. _____
8. Between -12 and -3 . _____
9. Between $+10$ and 0 . _____
10. Between -11 and -2 . _____

Lesson 108: Comparing integers.
(Competency N. 2)

Exercise Set A

Directions: Compare each given pair of numbers by writing $<$, $>$ or $=$ in the box provided.

1. -34 16

2. -28 -27

3. 12 -12

4. 174 -190

5. -125 200

6. -10 -12

7. 21 21

8. 15 -15

9. 63 -75

10. -156 -193

Exercise Set B

Directions: Compare each given pair of numbers by writing $<$, $>$ or $=$ in the box provided.

1. -7 -9

2. 9 6

3. -7 6

4. -3 0

5. 6 -8

6. -3 -4

7. 1 -3

8. -100 -200

9. 4 8

10. -120 10

**Lesson 109: Ordering integers in increasing /decreasing order.
(Competency N. 3)**

Exercise Set A

Directions: Order each set of integers from greatest to least (descending order)

1. 8, -4, -3, 6, 2, 0

2. _____
-5, -1, 0, 4, -3, 2

3. _____
3, 0, -2, 4, -1, 7

4. _____
-2, -6, 0, -4, -3

5. _____
15, 8, -3, 0, 10, -7

Directions: Order each set of integers from least to greatest (ascending order)

6. -9, -7, -4, 5, 8

7. _____
-5, -10, 0, 7, -20

8. _____
-21, -19, 8, 12, -7

9. _____
6, -2, 3, 0, -5

10. _____
-26, 18, 23, -30, -17

Exercise Set B

Directions: Order each set of integers from greatest to least (descending order)

1. 0, -5, -10, 4, 8

2. _____
-1, 1, 8, -8, 15

3. _____
3, 6, -9, 12, -15

4. _____
0, -2, 4, -6, 8

5. _____
-5, -10, 15, -20, 25

Directions: Order each integers from least to greatest (ascending order)

6. -36, 30, -24, 18, -12

7. _____
0, 4, -8, 12, -16

8. _____
-7, 8, 7, 14, -15

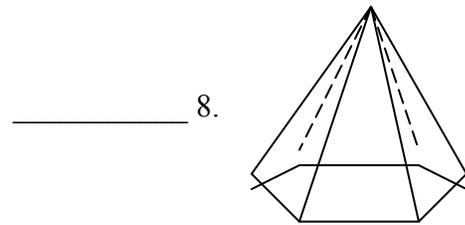
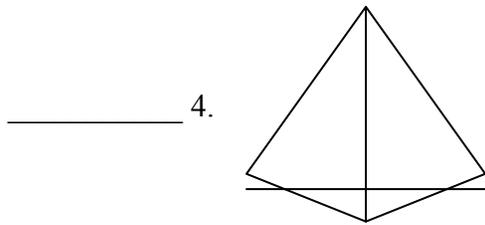
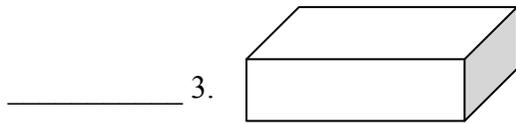
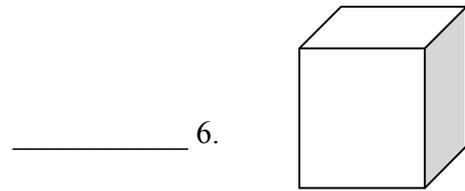
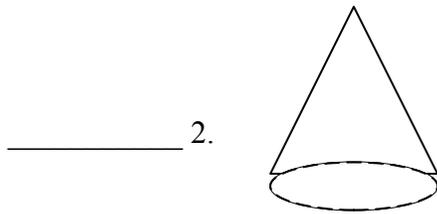
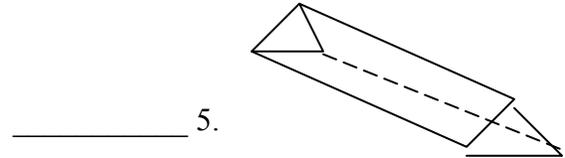
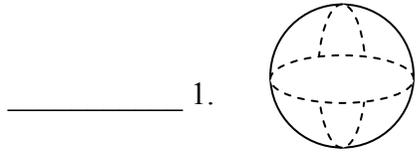
9. _____
10, 1, -20, 5, -30

10. _____
-5, 15, 25, 35, -45

Lesson 110: Visualize the different spatial figures: Cube, Rectangular Prism, Cylinder, Sphere, Pyramid, Cone etc. (Competency Geometry A 1.1)

Exercise Set A

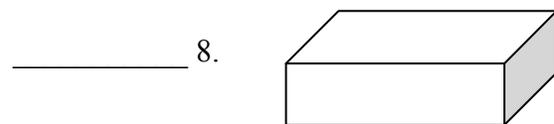
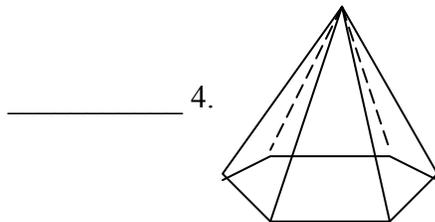
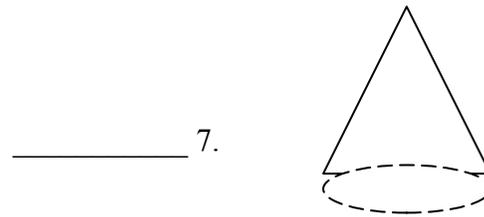
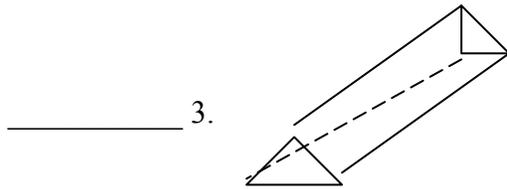
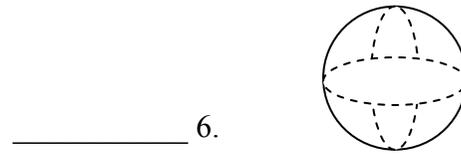
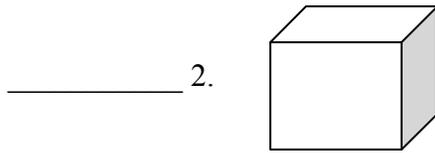
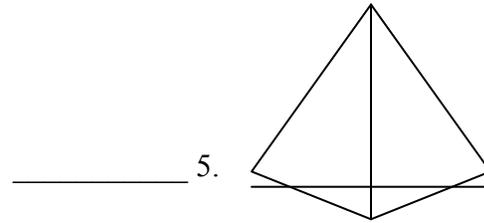
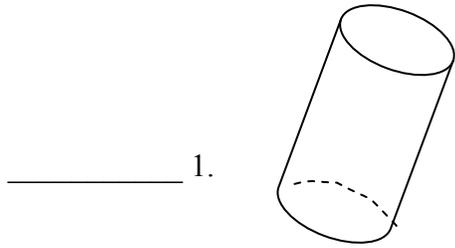
Direction: Identify the figures below then write your answer on the blank.



Lesson 110: Visualize the different spatial figures: Cube, Rectangular Prism, Cylinder, Sphere, Pyramid, Cone etc.
(Competency Geometry A 1.1)

Exercise Set B

Direction: Identify the figures below then write your answer on the blank.



Lesson 111: Describing the different spatial figures.
(Competency Geometry A. 1.2)

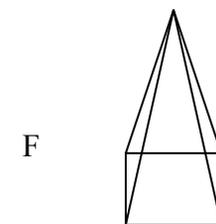
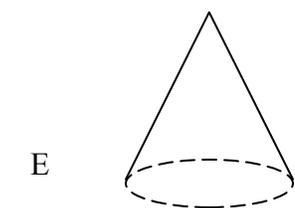
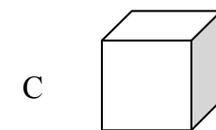
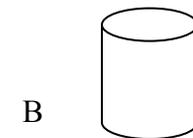
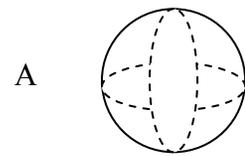
Exercise Set A

Direction: Match the description of the spatial figure to its drawing/illustration, then draw a line to match Column A with column B.

Column A

1. A spatial figure with 6 congruent faces.
2. It has 2 circular bases.
3. Resembles a globe
4. A spatial figure which is round with no edges.
5. It has a polygon for its base and triangle for its faces
6. It has a circular base and one vertex.
7. It has parallel circular bases.
8. Resembles a ball
9. Resembles dice.
10. Resembles a tin can.

Column B



Lesson 111: Describing the different spatial figures.
(Competency Geometry A. 1.2)

Exercise Set B

Direction: Write the description of each spatial figure by writing the number of edges, faces and vertices.

Spatial Figure	No. of Edges	No. of Faces	No. of Vertices
1. cone			
2. sphere			
3. cylinder			
4. cube			
5. pyramid			
6. rectangular Prism			

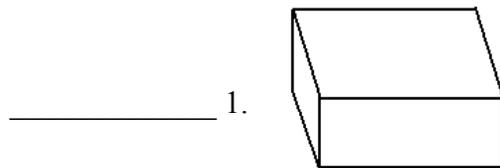
Lesson 112: Derive a formula for finding the surface area of: cubes, prisms, and cylinders.
(Competency B. 4 – Geometry)

Exercise Set A

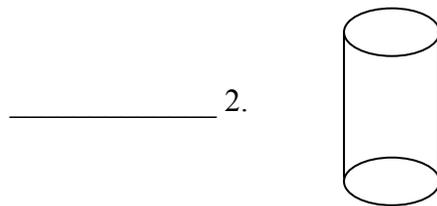
Directions: Match the surface area formula in column B with its appropriate figure in column A. Write the letter of your answer on the blanks provided.

Column A

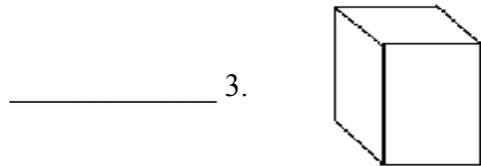
Column B



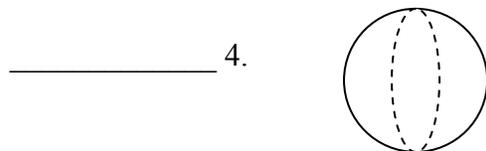
a. S.A. = $6 S^2$



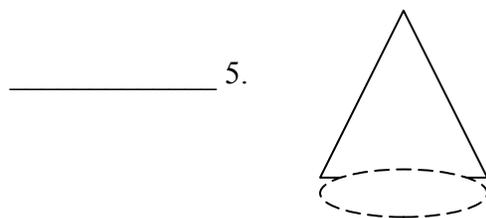
b. S.A. $\Pi r^2 + \Pi r S$



c. S.A. = $4 \Pi r^2$



d. S.A. = $2lw + 2lh + 2 wh$



e. S.A. = $2\Pi r^2 + 2\Pi r h$

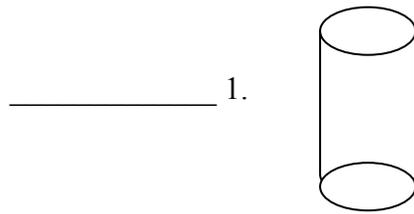
Lesson 112: Derive a formula for finding the surface area of: cubes, prisms, and cylinders.
(Competency B. 4 – Geometry)

Exercise Set B

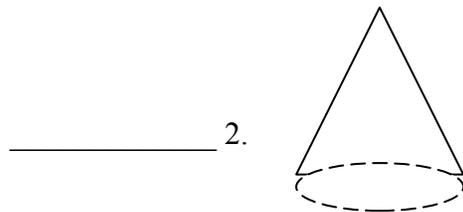
Directions: Match the surface area formula in column B with its appropriate figure in column A. Write the letter of your answer on the blanks provided.

Column A

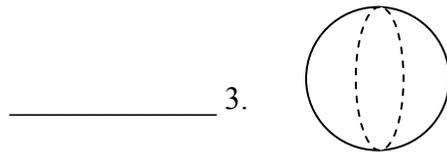
Column B



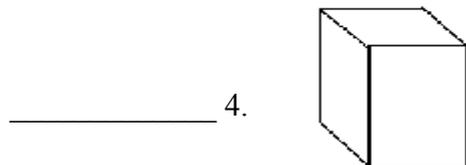
a. $S.A. = 4 \pi r^2$



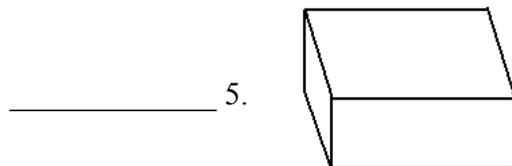
b. $S.A. = \pi r^2 + \pi r S$



c. $S.A. = 2lw + 2lh + 2 wh$



d. $S.A. = 6 x S^2$



e. $S.A. = 2\pi r^2 + 2\pi rh$

Lesson 113: Solve word problems involving measurement of surface area.
(Competency B. 5.2 – Geometry)

Exercise Set A

Directions: Read each given problem. Analyze and solve each problem. Write your answers in your notebook.

1. What is the surface area of a rectangular prism whose length is 6 m, height is 4 m and width is 5 m.
2. Find the surface area of a cylinder whose base is 8 cm in radius and height is 12 cm.
3. Find the surface area of a cone whose base is 40 cm in radius and whose slant height is 20 cm.
4. A milk can has a radius of 4 cm and a height of 11 cm. How much tin was used in making it?
5. A closed cone model has a radius of 7 cm and a height of 12 cm. Find the amount of material used in making the cone.
6. Mrs. Buan has a wooden box in the shape of a cube whose side is 1.5 meters. She wants to paint its outer surface. How much area will be painted?
7. How much gift wrapper is needed to wrap a box 45 cm long, 30 cm wide and 20 cm high?
8. A ball made of rubber has a radius of 15 cm. What is the area of the rubber material of which it is made?
9. A can of fruit juice shaped like a cylinder has a radius of 6 cm and a height of 24 cm. Find the area of the material of which it is made.
10. Dino made a wooden square pyramid with each face 60 cm^2 in area and with a base whose side is 10 cm. he wants to varnish its outer faces. Find the area that he should cover with varnish.

Lesson 113: Solve word problems involving measurement of surface area.
(Competency B. 5.2 – Geometry)

Exercise Set B

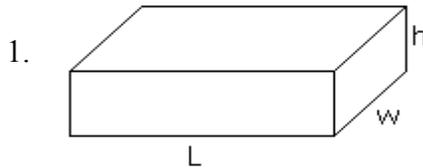
Directions: Read each given problem. Analyze and solve each problem. Write your answers in your notebook.

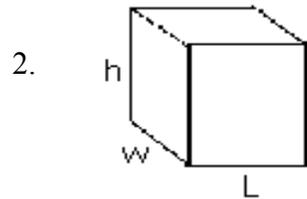
1. What is the surface area of a rectangular prism whose length is 5 cm, height is 4 m and width is 6 m.
2. Find the surface area of a cylinder whose base is 9 cm in radius and height is 10 cm.
3. Find the surface area of a cone whose base is 30 cm in radius and whose slant height is 20 cm.
4. A milk can has a radius of 5 cm and a height of 10 cm. How much tin was used in making it?
5. A closed cone model has a radius of 8 cm and a height of 15 cm. Find the amount of material used in making the cone.
6. Mrs. Carlos has a wooden box in the shape of a cube whose side is 2 meters. She wants to paint it all over in the outside. How much area will be painted?
7. How much gift wrapper is needed to wrap a box 50 cm long, 40 cm wide and 20 cm high?
8. A ball made of rubber has a radius of 10 cm. What is the area of the rubber material of which it is made?
9. A can of fruit juice shaped like a cylinder has a radius of 7 cm and a height of 25 cm. Find the area of the material of which it is made.
10. Dindo made a wooden square pyramid with each face 70 cm^2 in area and with a base whose side is 15 cm. he wants to varnish its outer faces. Find the area that he should cover with varnish.

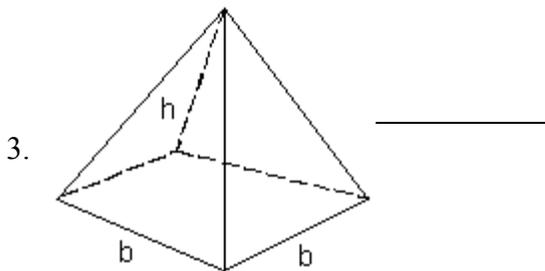
Lesson 114: Derive a formula for finding the volume of solids like prism, cylinders, pyramids and cones.
(Competency B. 1.3)

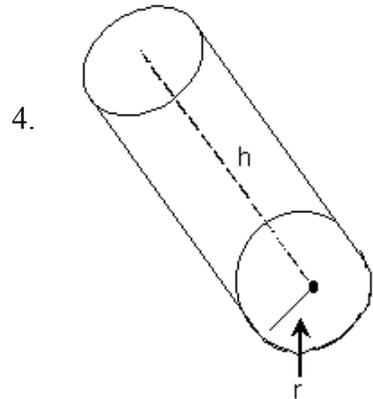
Exercise Set A

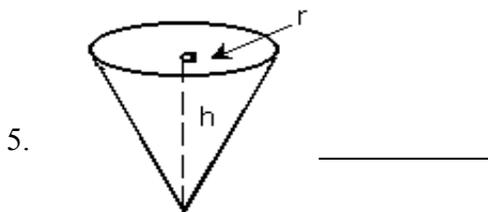
Direction: Give the formula for finding the volume of the following objects:











Exercise Set B

Direction: Give the formula for finding the volume of the following solids being described.

- _____ 1. The volume of a rectangular prism is equal to the product of its length, width and height.
- _____ 2. The volume of a pyramid is equal to $\frac{1}{3}$ the product of its base area and height.
- _____ 3. The volume of a cube is equal to the cube of an edge.
- _____ 4. The volume of a cone is one-third of the product of the area of the circular base and height.
- _____ 5. The volume of a cylinder is equal to the area of the circular base and the height.

Lesson 115: Solving word problems involving measurement of volume. (Competency B. 2.2)

Exercise Set A

Directions: Read each given problem. Analyze and solve each problem. Write your answers in your notebook.

1. A box measure 10cm on each side. What is the volume of the box?
2. How many cubic meters of sand can be loaded in a rectangular dump truck 2m high, 3m wide and 5.8m long?
3. A swimming pool is a rectangular prism 30m by 20m and 5m deep. What is the volume of the pool?
4. How many 3cm blocks can you put inside a 6cm by 9cm by 27cm wooden box?
5. The volume of a rectangular prism is 240cm^3 . Its length is 4cm and its height is 6cm. How wide is it?
6. Which has a greater volume? A box which is 12cm x 3cm x 8cm or a box which is 11cm x 7cm x 4cm? How much greater is it?
7. The area of the base of a pyramid is 4.5m^2 and its height is 3.5 m. What is the volume of the pyramid?
8. What is the volume of a pyramid whose base area is 254.30 cm^2 and whose height is 5cm?
9. A cylinder tank can hold 1, 416.93 dm^3 of water. If it has a height of 5dm. What is the radius of the tank?

Exercise Set B

Directions: Read each given problem. Analyze and solve each problem. Write your answers in your notebook.

1. A box measure 12cm on each side. What is the volume of the box?
2. How many cubic meters of sand can be loaded in a rectangular dump truck 3m high, 4m wide and 5.5m long?
3. What is the volume of a cylinder with a radius of 7cm and a height of 12cm?
4. A swimming pool is a rectangular prism 25m by 20m and 6m deep. What is the volume of the pool?
5. How many 2.0 cm blocks can you put inside a 7cm by 9cm by 30cm wooden box?
6. The volume of a rectangular prism is 318.75cm^3 . Its length is 5cm and its height is 8.5cm. How wide is it?
7. Which has a greater volume? A box which is 15cm x 4cm x 5cm or a box which is 13cm x 8cm x 5.5cm? How much greater is it?
8. The area of the base of a pyramid is 5.5m^2 and its height is 4.2 m. What is the volume of the pyramid?
9. What is the volume of a pyramid whose base area is 355.20 cm^2 and whose height is 7.5cm?

**Lesson 116: Stating complete answers for problems regarding volume.
(Competency B. 2.1.4)**

Exercise Set A

Direction: Find the volume of each figure described below.

1. A cone with a radius of 10mm and a height of 18mm.
2. A rectangular prism with a length of 11.25dm, a width of 7.54dm, and a height of 4.13dm.
3. A cube whose side measures 18mm.
4. A pyramid whose base has length of 16m and a width of 12m, and whose height is 20m.
5. A cylinder with a radius of 2m and a height of 6m.

Exercise Set B

Direction: Find the volume of each figure described below.

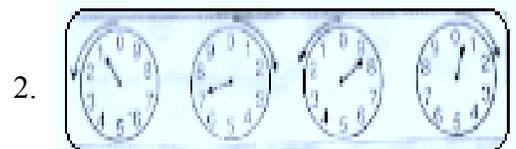
1. A container van measures 2.8 m long, 1.8 m wide and 2.1 m high. What is the capacity of the van?
2. A cylindrical water tank has a radius of 0.5m and a height of 3m. How much water can it hold?
3. A pyramid has a base area of 4cm^2 and a height of 15cm. What is its volume?
4. What is the volume of a cylinder whose base has a diameter of 6cm and whose height is 7cm?
5. Find the volume of a pyramid with a height of 10m and a base of 70 m^2 ?

Lesson 117: Reading and interpreting an electric meter.
(Competency IV C. 1.1)

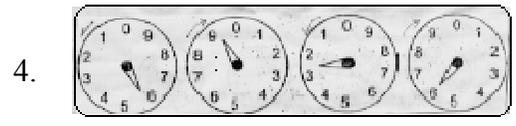
Exercise Set A

Directions: Write the meter reading for each item on the blank provided.

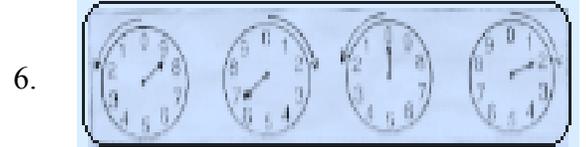
















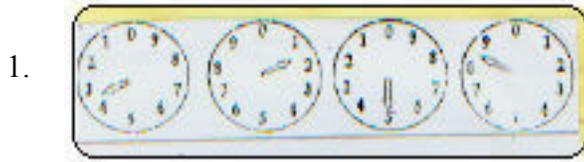


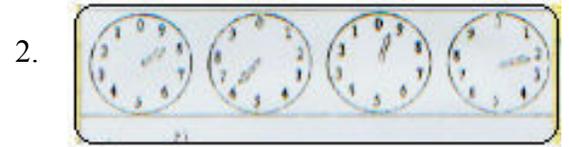


Lesson 117: Reading and interpreting an electric meter.
(Competency IV C. 1.1)

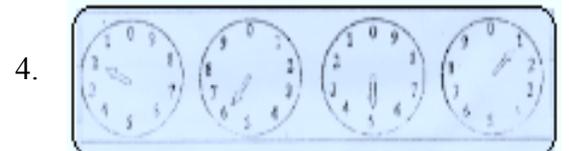
Exercise Set B

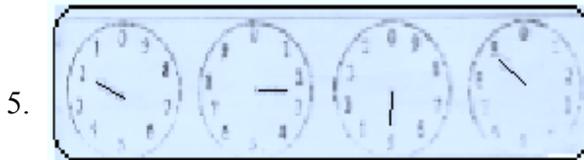
Directions: Write the meter reading for each item on the blank provided.

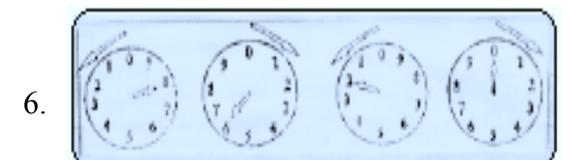


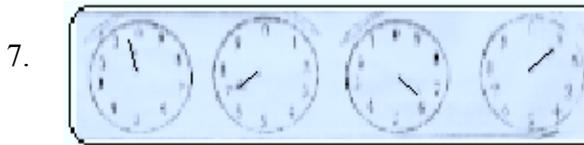


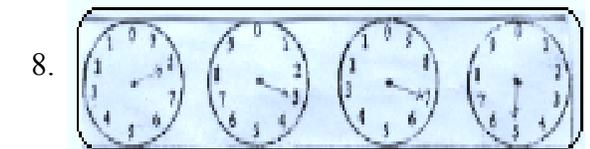




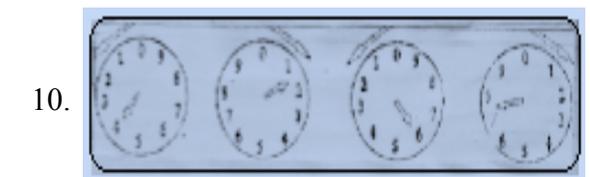












**Lesson 118: Reading and interpreting readings from water meter.
(Competency C. 1.2)**

Exercise Set A

Directions: Write the water reading of the following items by using the unit m^3 .

1. 0000741 = _____

2. 0007535 = _____

3. 1340 230 = _____

4. 0182 300 = _____

5. 0503 245 = _____

6. 0007, 940 = _____

7. 0017, 158 = _____

8. 0008 653 = _____

9. 1562 871 = _____

10. 0076 926 = _____

Exercise Set B

Directions: Write the water reading of the following items by using the unit m^3 .

1. 0115 190 = _____

2. 0131 047 = _____

3. 0018 118 = _____

4. 0920 147 = _____

5. 0078 241 = _____

6. 0002 345 = _____

7. 0034 176 = _____

8. 0017 185 = _____

9. 0236 102 = _____

10. 0058 109 = _____

**Lesson 119: Problem solving regarding meter reading
(Competency C. 2.1.4)**

Exercise Set A

Directions: Read the word problems then answer the questions that follow.

A. Mr. Dizon kept a record of his family's water consumption. During the same period, the meter read 0203.649; 0229.798; 0243.059; and 0256.270. The initial reading was 0098.023.

1. How many m^3 of water did the Dizon family use during these months? _____
2. How many liters (L) of water did the Dizon family use during these months? _____
3. What was their average monthly water consumption? _____
4. What was their daily water consumption in m^3 ? _____
5. What was their daily water consumption in liters (L)? _____

B. Feliza's record of her family's water consumption reads this way: Initial reading 0041, 395, September: 0053 621, October 0065 170, November 0079896 and December 0092 107.

1. During what month did Feliza's family use up the most water? _____
2. What month did they use the least water? _____
3. From September to December, how many liters (L) of water did they use? _____
4. How many m^3 of water is the equivalent? _____
5. What was the average monthly water consumption? _____

**Lesson 119: Problem solving regarding meter reading
(Competency C. 2.1.4)**

Exercise Set B

Directions: Read the word problems then answer the questions that follow.

A. Mr. Cruz kept a record of his family's water consumption. During the same period, the meter reads 0213.694; 0231.631; 0300.009; and 0320.001. The initial reading was 0200.098.

1. How many m^3 of water did the Cruz family use during these months? _____
2. How many liters (L) of water were used in all? _____
3. What was their average monthly water consumption? _____
4. What was their daily water consumption in m^3 ? _____
5. What was their daily water consumption in liters (L)? _____

B. Urzula's record of her family's water consumption reads this way: Initial reading: 0040, 395. January: 0059.431, February: 0085 231, March: 0102.310 and April: 0193.042.

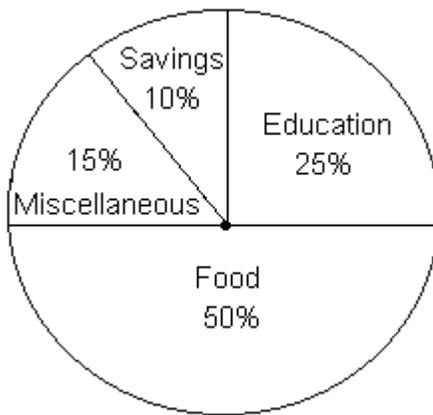
6. During what month did Urzula's family use up the most water? _____
7. What month did they use the least water? _____
8. From January to April, how many liter (L) of water did they use? _____
9. How many m^3 of water is the equivalent? _____
10. What was the average monthly water consumption? _____

**Lesson 120: Read / interpret data presented in a circle graph.
(Competency A.1 – Graph)**

Exercise Set A

Directions: Study the circle graph below then answer the questions that follow.

THE GRAPH SHOWS HOW MR. LIM'S MONTHLY SALARY OF P12,000 IS SPENT.



1. How much does Mr. Lim save in a month?

2. Which selected item is allotted to the greatest amount?

3. What fraction of Mr. Lim's salary goes to education?

4. How much is spent for miscellaneous expenses?

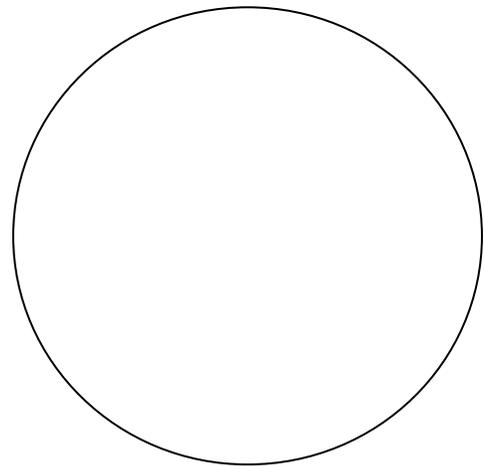
5. How much more is spent for food than on education?

Exercise Set B

Directions: Look at the data and make a circle graph out of them.

MY 24 HOUR SUNDAY SCHEDULE

- 33 % - Sleeping
- 25 % - Helping at home
- 20 % - Playing with friends
- 7 % - Go to Church
- 15 % - Watching TV



Lesson 121: Reading circle graph.
(Competency V. 2)

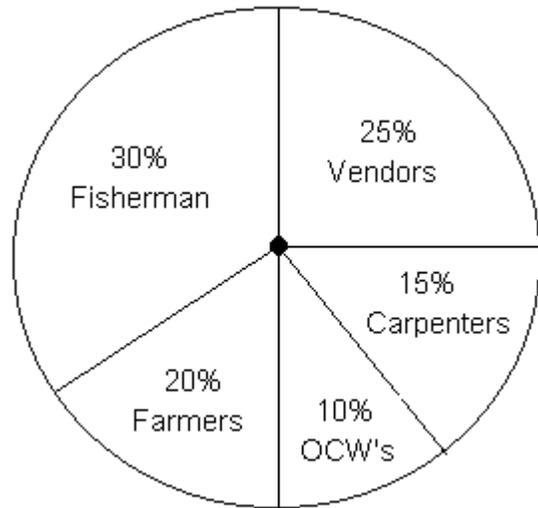
Exercise Set A

Directions: Study and interpret the circle graph and answer the questions that follow.

A. Occupations of 400 parents of Barangay Maharlika Elementary School students

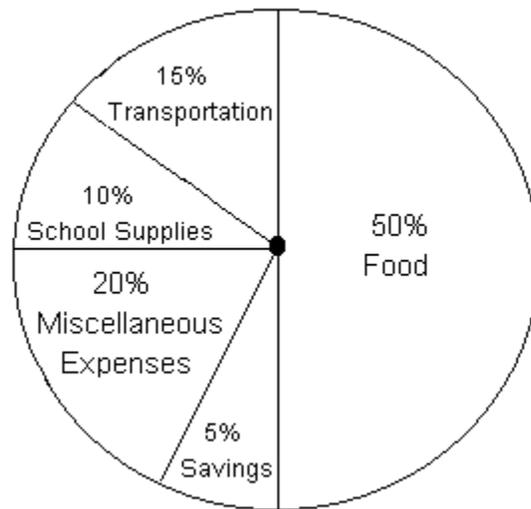
1. What is the circle graph about?

2. How many of the parents are vendors? _____
3. How many parents are Overseas Contract Workers? _____
4. Find the average number of parents whose work are fishing and farming. _____
5. On the average, how many are vendors and carpenters? _____



B. Paulo's monthly allocation given as allowance of P1, 200

1. How much is allotted per month for food? _____
2. How much is spent for transportation? _____
3. How much does Paulo save in a month? _____
4. Find the average amount of money allotted per month on food and transportation? _____
5. What is the average amount of money allotted for school supplies, savings and miscellaneous expenses? _____



Lesson 121: Reading circle graph.
(Competency V. 2)

Exercise Set B

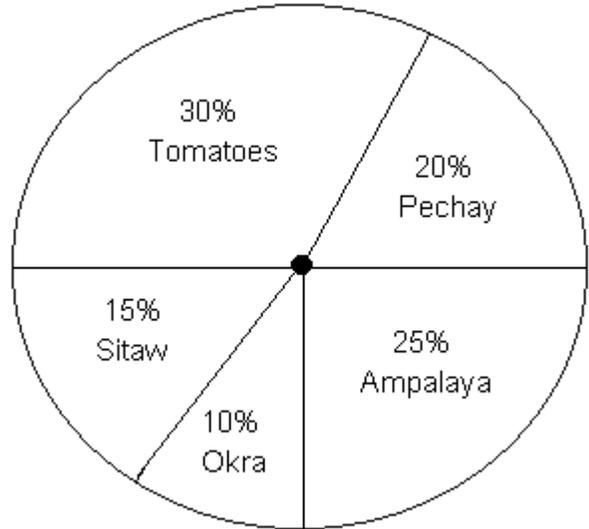
Directions: Study and interpret the circle graph and answer the questions that follow.

A. Different kinds of vegetables a farmer harvested in a week

1. What is the circle graph about?

2. How many kg of tomatoes did the farmer harvested in one week?

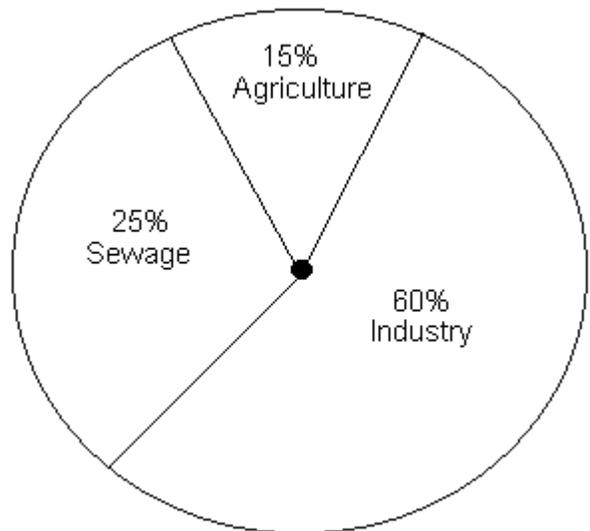
3. Find the average number of kgs of tomatoes and pechay harvested in a week. _____
4. On the average, how many kgs of sitaw, okra and ampalaya were harvested? _____
5. What is the average number of kilograms of vegetables harvested in one week?



B. Different sources of water pollution

1. Which gives the most water pollution? _____
2. How much pollution does water get from sewage? _____
3. Which gives the least pollution?

4. By how much? _____



Lesson 122: Organize data presented in a line graph.
(Competency A. 3.1 – Graphs)

Exercise Set A

Directions: Draw a line graph to show the food expenses of the Gomez family during the last half of the year on the space provided below the table then answer the questions that follow.

MONTH	FOOD EXPENSES
JULY	P3, 500
AUGUST	P5, 000
SEPTEMBER	P4, 500
OCTOBER	P5, 500
NOVEMBER	P6, 000
DECEMBER	P8, 500

- In which month was the food expenses the biggest?

- What is the average food expenses of the Gomez Family during the last half of the year?

Exercise Set B

Directions: Draw a line graph to show Lenny’s General Average in Grade school on the space below the table then answer the questions that follow.

GRADE LEVEL	GENERAL AVERAGE
I	97
II	88
III	90
IV	85
V	88
VI	89

- What was Lenny’s highest general average in grade school?

- In which grade level did she obtain this general average?

- What was Lenny’s lowest general average?

- In which grade levels did she get an average of 88?

- In which grade level did she get a general average of 90?

ANSWER KEY FOR GRADE 6 MATHEMATICS

Lesson 1: Exercise A 1. $7 + 11$ 2. $15 - 3$ 3. 7×8 4. $20 \div 2$ 5. $(4 \times 7) - 15$ 6. $(15 \times 5) - (15 \div 5)$ 7. $(2 \times A) + 10$ 8. $9 + (3 \times R)$ 9. $\frac{1}{2} \times 30$ 10. $(10 + 8)^2$ **Exercise B** 1. $60 + 90$ 2. $50 - 13$ 3. 17×20 4. $20 + (2 \times 7)$ 5. $1m + 5cm$ 6. $5^2 + 9^2$ 7. $60 \div 5$ 8. $(5 \times 8) - 20$ 9. $3 \times \text{Php}$ 30 10. $\frac{1}{3} \times (7 + 8)$ **Lesson 2: Exercise A** 1. 4 2. 9,9,9 3. 4 4. $2 \cdot 5 \cdot 4^4$ 5. 6 7. Third 8. 10^2 9. 8^5 10. 5 **Exercise B** 1. 10,10 2. 125 3. 16 4. 2 5. 2 6. 2^4 7. 100 8. 9^2 9. 4 10. 12^2 **Lesson 3: Exercise A** 1. 11 2. 16 3. 83 4. 60 5. 12 6. 19 7. 15 8. 112 9. 957 10. 16 **Exercise B** 1. 85 2. 109 3. 14 4. 117 5. 37 6. 41 7. 32 8. 19 9. 17 10. 57 **Lesson 4: Exercise A** 1. 43 2. 10 3. 16 4. 21 5. 9 6. 53 7. 24 8. 38 9. 91 10. 62 **Exercise B** 1. 49 2. 41 3. 23 4. 55 5. 8 6. 3 7. 19 8. 140 9. 265 10. 12 **Lesson 5: Exercise A** 1. 21 2. 23 3. 39 4. 45 5. 75 6. 103 7. 41 8. 18 9. 37 10. 24 **Exercise B** 1. 23 2. 6 3. 26 4. 16 5. 14 6. 16 7. 7 8. 67 9. 9 10. 1, 440 **Lesson 6: Exercise A** 1. 5859 2. 1469 3. 3075 4. 1925 5. 3, 788 6. 947 7. 410 8. 82 9. 625 10. 375 **Exercise B** 1. 7, 617 2. 2, 342 3. 3, 105 4. 1, 895 5. 4, 104 6. 1, 026 7. 288 8. 90 9. 300 10. 678 **Lesson 7: Exercise A** 1. 0. 4 2. 0. 5 3. 1, 550.75 4. 0. 18 5. 1.2 6. 1021 7. 2.6 8. 2.3 9. P10.50 10. 0.7 **Exercise B** 1. 0. 8 2. 1 3. P1, 650 4. 0. 5 5. 2.4 6. P126.75 7. 3.4 8. 3.7 9. P3.25 10. 2.1 **Lesson 8: Exercise A** 1. 0. 6 2. 1.3 3. 0. 18 4. 0. 9 5. 0. 50 6. 1. 40 7. 0. 50 8. 1. 50 9. P1, 720 10. 1. 10 **Exercise B** 1. 0. 8 2. 1. 1 3. 0. 20 4. 0. 6 5. 1. 3 6. 1. 7 7. 0. 2 8. 2. 1 9. P2, 550 10. 1. 20 **Lesson 9: Exercise A** 1. 0. 2 2. 0. 09 3. 0. 15 4. 0. 128 5. 0. 06 6. 0. 075 7. 0. 82 8. 0. 095 9. 0. 5 10. 0. 008 **Exercise B** 1. 0. 3 2. 0. 05 3. 0. 007 4. 0. 14 5. 0. 016 6. 0. 018 7. 0. 09 8. 0. 011 9. 0. 019 10. 0. 002 **Lesson 10: Exercise A** 1. thousandths- 4 thousandths 2. tenths- 6 tenths 3. ones -3 ones 4. ones -1 ones 5. hundredths -8 hundredths 6. tenths - 1 tenths

7. ten thousandths- 80 thousandths 8. thousandths - 1 thousandths 9. ten thousandths- 60 thousandths 10. 19. 5555, 6. 4625, 3. 4835 **Exercise B** 1. hundredths - 7 hundredths 2. ten thousandths-10 thousandths 3. hundredths - 3 hundredths 4. thousandths - 3 thousandths 5. tenths - 4 tenths 6. thousandths - 1 thousandths 7. ten thousandths- ten thousandths 8. hundredths - 2 hundredths 9. hundred thousandths- 5 hundred thousandths 10. 1. 13 = ones - 1 ones; tenths - 1 tenths; hundredths - 3 hundredths **Lesson 11: Exercise A** 1. four tenths 2. six hundredths 3. nine thousandths 4. eighty-nine ten thousandths 5. three thousand, nine hundred sixty-two, ten thousandths 6. seven ten thousandths 7. eight and twenty-five ten thousandths 8. forty-two and fifty-one hundredths 9. thirteen and six hundred thirty-two thousandths 10. four hundred fifty and six thousand, eight hundred ninety-four ten thousandths **Exercise B** 1. five tenths 2. seven hundredths 3. eight thousandths 4. sixty-seven ten thousandths 5. four thousand, five hundred, sixty-nine ten thousandths 6. nine ten thousandths 7. four and seventy-six ten thousandths 8. seventy-nine and eighteen hundredths 9. sixteen and seven hundred eighty-five thousandths 10. three hundred ninety-two and four thousand three hundred twenty-one ten thousandths **Lesson 12: Exercise A** 1. 56. 89 2. 72. 053 3. 86. 48 4. 32. 046 5. 4. 096

$$6. (9x) + \left(4x \frac{1}{100}\right) + \left(5x \frac{1}{1000}\right) / (9x10^0) + (4x10^2) + (5x10^3)$$

$$7. \left(4x \frac{1}{100}\right) + 8x \frac{1}{1000} / (4x10^2) + (8x10^3)$$

$$8. (7x1) + \left(5x \frac{1}{1000}\right) / (7x10^0) + (5x10^3)$$

$$9. (7x10) + \left(1x \frac{1}{10}\right) + \left(2x \frac{1}{100}\right) + \left(5x \frac{1}{1000}\right) + \left(3x \frac{1}{10,000}\right) / (7x10^0) + (1x10^{-10}) + (2x10^{-2}) + (5x10^{-3}) + (3x10^{-4})$$

10. 8.735 **Exercise B 1.** 5. 69 2. 93. 043 3.
68. 58 4. 23. 066 5. 90. 049

$$6. (4x1) + \left(9x\frac{1}{100}\right)5x\frac{1}{1000}, (4x10^0) + (9x10^2) + (5x10^3)$$

$$7. \left(8x\frac{1}{100}\right) + \left(3x\frac{1}{1000}\right), (8x10^{-2}) + (3x10^{-3})$$

$$8. (5x1) + \left(7x\frac{1}{1000}\right), (5x1) + (7x10^{-3})$$

$$9. (1x10) + (2x1) + \left(7x\frac{1}{10}\right) + \left(5x\frac{1}{1000}\right) + \left(3x\frac{1}{10,000}\right), \\ (1x10) + (2x1) + (7x10^1) + (5x10^3) + (3x10^4)$$

10. 8.736

Lesson 13: Exercise A 1. < 2. > 3. = 4. < 5.
> 6. 0. 3756- 3. 756 37. 56 -375. 6 7. 0.
2468- 0. 2486 0. 2648 - 0. 2846 8. 1. 110101
- 11. 0101 11. 01101- 11. 111 9.
2. 3132 - 23. 132 231. 32 - 2313. 2 10. 5.
5555 - 55. 5555 555. 555 - 5555. 55

Exercise B 1. < 2. < 3. = 4. > 5. <

6. 0. 7349 0. 481
0. 380. 256

7. 2. 7666 2. 6789
2. 461 2. 3392

8. 6. 87 6. 786
5. 241 0.93

9. 262. 351 62. 1253
26. 5321 26. 2351

10. 905. 928 95. 7654
5. 8642 5. 6248

Lesson 14: Exercise A 1. 0. 6 2. 3. 6 3. 81.1
4. 0. 85 5. 12. 13 6. 25. 67 7. 3. 157 8. 56.

399 9. 33. 497 10. 17 **Exercise B 1.** 0. 7 2.
9. 5 3. 18. 22 4. 0. 84 5. 12. 21 6. 25. 47 7. 3.

75 8. 56. 183 9. 35. 638 10. 106 **Lesson 15:**
Exercise A 1. 1. 04 2. 1. 18 3. 11. 65 4.

49.27 5. 71.96 6. 16. 34 7. 14. 71 8. 171. 01
9. 29. 25 10. 647. 41 **Exercise B 1.** 193. 91

2. 44. 53 3. 9. 65 4. 2. 13 5. 523. 44 6. 17. 1
7. P 884. 80 8. 2. 2 9. P482. 30 10. P2, 880.

70 **Lesson 16: Exercise A 1.** 0.92 2. 0.37 3.
4.4 4. 1.2 5. 1.55 6. 3.42 7. 41.26 8. 21.03 9.

4.0754 10. 3.9657 **Exercise B 1.** 0.55 2.
0.38 3. 10.2 4. 0.20 5. 0.01 6. 7.49 7. 20.91

8. 29.276 9. 8.2369 10. 0.19 **Lesson 17:**
Exercise A 1. 0.63 2. 0.90 3. 0.9201 4.

0.6009 5. 0.239 6. 0.7 7. 0.17 8. 0.09 9.
0.2089 10. 0.4289 **Exercise B 1.** 18.803 2.

18.2532 3. 150.581 4. 204.031 5. 396.259 6.

6.249 7. 2.82 8. 73.668 9. 73.6686 10.2.5694

Lesson 18: Exercise A 1. 31.794 2. 42.83 3.
46.53765 4. 9.1317 5. 16.9814 6. 10.3707 7.

8.468 8. 70.701 9. 45 10. 79.9155 **Exercise**
B 1. 40.7 2. 57.86 3. 79.798 4. 6.5342 5.

16.287 6. 14.015 7. 53.169 8. 85.7014 9.
41.782 10. 86.356 **Lesson 19: Exercise A**

	<u>SUM</u>	<u>PROPERTY</u>
--	------------	-----------------

1.	16	CPA
----	----	-----

2.	21	ZPA
----	----	-----

3.	19	ZPA
----	----	-----

4.	34	CPA
----	----	-----

5.	21	APA
----	----	-----

6.	34	CPA
----	----	-----

7.	42	APA
----	----	-----

8.	405	APA
----	-----	-----

9.	167	APA
----	-----	-----

10.	323	APA
-----	-----	-----

Exercise B

	<u>SUM</u>	<u>PROPERTY</u>
--	------------	-----------------

1.	15	CPA
----	----	-----

2.	32	ZPA
----	----	-----

3.	35	ZPA
----	----	-----

4.	34	CPA
----	----	-----

5.	27	APA
----	----	-----

6.	61	CPA
----	----	-----

7.	102	APA
----	-----	-----

8.	395	APA
----	-----	-----

9.	158	APA
----	-----	-----

10.	44	APA
-----	----	-----

Lesson 20: Exercise A 1. 8.5 + 3.5 + 1.25 =

N 2. P500.00 - P185.90 = N 3. 7.05m -

3.5m = N 4. 0.5 kg + 1.75 kg + 2.2 kg + 1.5

kg = N 5. 66.8 kg - 49.5 kg = N 6. 0.9m -

0.055m = N 7. 2.5 kg + 3.5 kg + 6.5 kg = N

8. 386.7 lb. - 319.6254 lb. = N 9. P175.50 +

P125.00 + P70.00 + P45.50 = N 10. 48.62

km + 39.75 km + 41.96 km = N **Exercise B**

1. 9.5 kg + 4.5 kg + 3.5 kg = N 2. P500.00 -

P295.90 = N 3. 9.07m - 4.5m = N 4. 3.5 kg

+ 2.75 kg + 4.7 kg + 3.6 kg = N 5. 88.6 kg -

56.8 kg = N 6. 6.9 m - 2.087 m = N 7. 6.5

kg + 4.5 kg + 7.5 kg = N 8. 549.85 kg -

385.65 kg = N 9. P286.50 + P150.00 +

P85.00 + P58.50 = N 10. 56.2 km + 48.75

km + 45.75 km = N **Lesson 21: Exercise A**

1. 15.09 cm 2. 20.4 hrs. 3. 49.9 kg 4. P341 5.

P2,398.55 6. P5,882 7. 611 pupils 8. 2,413

9. P450 10. 296 windows **Exercise B 1.** 36

yrs. 2. P4, 358.22 3. 116.8m 4. 2.5m 5. P13,

593 6. P160 7. P17,995 8. P257, 525 9. 70,028 books 10. 820 **Lesson 22: Exercise A 1.** She will have P819.05 2. The part of candle used in the experiment was 16.03 cm. 3. He got P195, 000.00 4. She worked 21.7 hours in 3 days 5. She will have P2, 825 left. 6. Ivy's weight is 42.65 kg 7. 108 pupils more were enrolled in 2006 than in 2007. 8. He has P3, 350.00 left 9. She got a profit of P350.00 10. P215 was left. **Exercise B 1.** She will have P445.15 2. The part of the candle used in the experiment was 15.05 cm 3. He got P264, 000.00 4. She worked 22.9 hours in 3 days 5. She will have P2, 795.00 left. 6. Irene's weight is 43.7 kg. 7. 29 pupils more were enrolled in 2006 than in 2007. 8. P4, 693.00 were left of his money. 9. She got a profit of P 358.00 10. P233 was left.

Lesson 23: Exercise A

1 - 5

.4	.9	.9	.9	.5
<u>x 20</u>	<u>x 20</u>	<u>x 30</u>	<u>x 70</u>	<u>x 600</u>
8.0	18.0	27.0	63.0	300.0

6 - 10

.6	.4	.6	6	4
<u>x 300</u>	<u>x 500</u>	<u>x 200</u>	<u>x 8</u>	<u>x 10</u>
180.0	200.0	120.0	48	40

Exercise B

1 - 5

.5	.8	.9	.4	.8
<u>x 20</u>	<u>x 10</u>	<u>x 30</u>	<u>x 50</u>	<u>x 300</u>
10.0	8.0	27.0	20.0	240.0

.3	.8	1	10	90
<u>x 300</u>	<u>x 600</u>	<u>x 300</u>	<u>x 8</u>	<u>x 100</u>
90.0	480.0	300	80	9,000

Lesson 24: Exercise A 1. 0.0984 2. 0.0018 3. 0.01304 4. 0.0228 5. 0.03654 6. 0.05632 7. 0.08145 8. 0.0744 9. 0.0344 10. 0.03654

Exercise B 1. 0.0642 2. 0.032 3. 0.01356 4. 0.362 5. 0.02768 6. 0.03054 7. 0.0483 8. 0.06248 9. 0.08424 10. 0.06153 **Lesson 25:**

Exercise A 1. 0.0168 2. 0.033 3. 0.0713 4. 0.1271 5. 0.0126 6. 0.112 7. 0.081 8. 0.2035 9. 0.4399 10. 0.5372 **Exercise B 1.** 17.25 2. 20.352 3. 8.083 4. 64.602 5. 53.144 6.

138.996 7. 324.268 8. 5548.035 9. 2020.4976 10. 404.5208 **Lesson 26: Exercise A 1.** 9.24 2. 11.886 3. 16.874 4. 48.006 5. 37.755 6. 105.909 7. 206.073 8. 376.808 9. 426.156 10. 46.944 **Exercise B 1.** 17.25 2. 20.352 3. 28.083 4. 64.602 5. 53.144 6. 138.996 7. 324.268 8. 5548.035 9. 2020.4976 10. 404.5208 **Lesson 27: Exercise A 1.** 20.93 2. 319.04 3. 38, 040 4. 150.3 5. 3, 538.2 6. 20, 187 7. 2, 006 8. 91, 420 9. 870, 006 10. 0.0097cm, 0.97 cm, 9.7 cm

Exercise B 1. 30.39 2. 139.04 3. 38, 400 4. 513.0 5. 5, 332.8 6. 10, 781 7. 2, 008 8. 19, 420 9. 708, 600 10. 0.068, 0.68, 6.8 **Lesson 28: Exercise A 1.** .02 2. .0458 3. .00936 4. .007432 5. .0274 6. .0689 7. .0729 8. .08949 9. .741856 10. .9530493 **Exercise B 1.** .0895 2. 4.86 3. .928 4. 6.1742 5. .00895 6. .486 7. .0928 8. .00895 9. .0486 10. .00928

Lesson 29: Exercise A

	PRODUCT	PROPERTY
1.	7	IBM
2.	0	ZPM
3.	28	CPM
4.	60	CPM
5.	140	APM
6.	65	DPM
7.	96	DPM
8.	80	DPM
9.	56	DPM
10.	$(9 \times 4) + (9 \times 6) = 9 \times (4 + 6) = 90$	

Exercise B

	PRODUCT	PROPERTY
1.	3	IPM
2.	0	ZPM
3.	16	CPM
4.	50	CPM
5.	24	APM
6.	90	DPM
7.	42	DPM
8.	90	DPM
9.	35	DPM
10.	$(6 \times 4) + (6 \times 7) = 6 \times (4 + 7) = 66$	

Lesson 30: Exercise A 1. 4.5 kg x 5 = N 2. P12.75 x 12 = N 3. 175.80 m² x P750.00 = N 4. 49.5 kg x 8 = N 5. P56.75 x 8.5 = N 6. 5.25 m x .6 = N 7. 1.75 kg x 3 = N 8. P9.50 x 45 = N 9. 16.5 x .8 = N 10. P96.58 x 10 = N **Exercise B 1.** 5.6 kg x 6 = N 2. P12.90 x

24 = N 3. P180.75 m² x P900 = N 4. 49.5 kg x 9 = N 5. P58.90 x 10.5 = N 6. 8.25 m x 2.6 = N 7. 12.4 kg x 6 = N 8. P12.50 x 48 = N 9. 18.5 x .9 = N 10. P105.50 x 12 = N **Lesson 31: Exercise A 1.** P5.79375 2. P3, 470 3. P474.175 4. P462 5. 4.14 kg 6. P117, 487.50 7. P22,750 8. P1, 494.725 9. 60.775 cm² 10. P1, 530 **Exercise B 1.** 2, 880 girls 2. 52.8m 3. 24.8 m 4. 10.9385 kg 5. 5.941 cm 6. 33.6 km 7. 61.275 cm² 8. P521.85 9. P69, 306 10. P642, 621

Lesson 32: Exercise A

1 - 3

10.75	3.67	20.25
<u>+ 15.75</u>	<u>x 2.54</u>	<u>x 8.00</u>
26.50	9.3218 m ²	28.25
<u>x 7</u>	<u>x 6</u>	<u>x 5</u>
185.50 kg	55.9308 m ²	P141.25

4 - 5

P47.80	2.75
<u>x 2</u>	<u>x 2.25</u>
95.60	5.00
<u>+120.00</u>	<u>x 5</u>
P215.60	25.00 hours

6.

P60	P65	P75	P300
<u>x 5</u>	<u>x 15</u>	<u>x 15</u>	975
P300	P975	P1125	<u>+ 1125</u>
			P2400

7 - 8

3.15	45.8
<u>x 2.35</u>	<u>x 25.5</u>
5.50	1169.175 m ²
<u>x 6</u>	<u>x 330.50</u>
33.00 hours	P386,412.3375

9 - 10

P500.00	3,137.50
<u>- 336.45</u>	<u>- 850.00</u>
P163.55	P2, 287.50
	<u>+ 1, 150.00</u>
	P3, 437.50

Exercise B

1. 12.75	2. 3.74	3. 30.75
<u>+ 16.5</u>	<u>x 3.67</u>	<u>+ 15.00</u>
29.25	13.7258	45.75
<u>x 7</u>	<u>x 6</u>	<u>x 6</u>
204.75	82.3548m ²	P274.50

4. P48.50	5. 3.2
<u>x 3</u>	<u>+ 2.75</u>
145.50	5.95
<u>+130.00</u>	<u>x 6</u>
P275.50	35.70 hours

6. P65	P68	16	46	P325
<u>x 5</u>	<u>x 16</u>	<u>+ 5</u>	<u>-21</u>	<u>+ 1,088</u>
P325	P1,088	21	25	<u>1,900</u>
			<u>x76</u>	P3, 313
			P1,900	

7. 3.6	8. 46.75
<u>+3.2</u>	<u>x 25.8</u>
6.8	1206.15m ²
<u>x 6</u>	<u>x 375.75</u>
40.8 hours	P453,210.8625

9. P75.75	P1000.00	10. P5 275.00
<u>x 3</u>	<u>- 802.25</u>	<u>- 1 200.00</u>
P 227.25	P197.75	4,075.00
<u>+ 575.00</u>		<u>+ 3,400.00</u>
P802.25		P7,475.00

Lesson 33: Exercise A 1. 1.5 x P180 = N; N = P270 2. 3.5 x P65 N; N = P227.50 3. P25.25 x 15 = N; N = P378.75 4. P40.50 x 15 = N; N = P607.50 5. 5 x 10.3 = N; N = 51.5 kg 6. P150 x 5 = N; N = P750 7. P1, 000 - (4 x P215.15) = N; N = P139.40 8. P300 - (P130.25 + P30.50) = N; N = P139.25 9. (5 x P32.25) + (6 x P35.15) + (9 x P9.75) = N; N = P459.90 10. [(8 x P100) - (8 x P75.25) + (4 x P40.50)] = N; N = P36 **Exercise B 1.** 1.8 x P180 = N; N = P324 2. 4.5 x P65 = N; N = P292.5 3. P25.25 x 25 = N; N = P631.25 4. P50.50 x 12 = N; N = P606 5. 7 x 12.5 = N; N = P87.5 6. P170 x 7 = N; N = P 1, 190 7. P2, 00 - (7 x P220.10) = N; N = P459.3 8. P500 - (P180.50 +

$P160.70) = N$; $N = P158.8$ 9. $(8 \times P35.15) + (6 \times P32.75) + (11 \times P8.50) = N$; $N = P571.2$
 10. $[(12 \times P100) - (10 \times P80.10) + (6 \times P39.50)] = N$; $N = P162$ **Lesson 34:**
Exercise A 1. $261 \div 2 = 130.5$ 2. $346 \div 2 = 173$ 3. $469 \div 2 = 234.5$ 4. $639 \div 3 = 213$ 5. $976 \div 4 = 244$ 6. $968 \div 4 = 242$ 7. $4587 \div 3 = 1529$ 8. $7654 \div 22 = 347.91$ 9. $8895 \div 31 = 286.94$ 10. $79381 \div 43 = 1846.07$
Exercise B 1. $4408 \div 61 = 72.26$ 2. $5689 \div 46 = 123.67$ 3. $6874 \div 53 = 129.70$ 4. $7898 \div 44 = 179.5$ 5. $60938 \div 56 = 1088.18$ 6. $31486 \div 27 = 1166.15$ 7. $42684 \div 33 = 1293.45$ 8. $93210 \div 62 = 1503.39$ 9. $245368 \div 72 = 3407.89$ 10. $368912 \div 81 = 4554.47$
Lesson 35: Exercise A 1. 87.5 2. 410 3. 150 4. 770 5. 1, 042.5 6. 565,700 7. 16255 8. 21065 9. 47,660 10. 355, 175 **Exercise B 1.** 520 2. 405 3. 605 4. 420 5. 400 6. 800 7. 450 8. 4, 600 9. 6, 200 10. 57, 000 **Lesson 36: Exercise A**
 1. .0833...-repeating / non -terminating
 2. .222...-repeating / non -terminating
 3. .1764...- non - terminating
 4. .625 - terminating
 5. .2142- non - terminating
 6. .0375terminating
 7. .12 -terminating
 8. .666...-repeating / non -terminating
 9. .2666...-repeating / non -terminating
 10. .2 - terminating
Exercise B
 1. .666...-repeating / non -terminating
 2. 0.8333...-repeating / non -terminating
 3. .5 - terminating
 4. .666 -repeating / non -terminating
 5. .7826-non - terminating
 6. .025-terminating
 7. 0.5 - terminating
 8. .75 - terminating
 9. .4 - terminating
 10. .6461- non - terminating
Lesson 37: Exercise A 1. 30 2. 30 3. 600 4. 472.73 5. 123.23 6. 4 7. 960 8. 714.29 9. 500 10. 475 **Exercise B 1.** 80 2. 850 3. 750 4. 4,100 5. 50, 500 6. 80 7. 54, 000 8. 41, 000 9. 1, 216.67 10. 163, 000 **Lesson 38: Exercise A 1.** 324 2. 409 3. 5.02 4. 86.3 5. 89.2 6. 4.7 7. 18.4 8. 32.8 9. 54.4 10. 39.546 **Exercise B 1.** 3.9 2. .888 3. 6.5 4. 45.6 5. 20.5 6. 63.9 7. 5.2 8. 26.6 9. 14.056 10. 12.5

Lesson 39: Exercise A 1. .36 2. .49 3. 3.67 4. 485 5. 935 6. 4.392 7. .0743 8. .2085 9. .003842 10. .94645 **Exercise B 1.** 7.45 2. .0483 3. 9.737 4. 1.9383 5. .06208 6. .8743 7. 54.37 8. 36.175 9. 2.974 10. .06381
Lesson 40: Exercise A 1. 147 2. 970.85 3. 85 4. 647.2 5. 5, 680 6. 907.2 7. 72.5 8. 51, 9. 83 9. 2, 095.61 10. 57, 280 **Exercise B 1.** 907.1 2. 7.124 3. 853.2 4. 1, 649 5. 432 6. 2, 102.9 7. 9, 373.8 8. 49, 670 9. 41, 839.4 10. 57, 096.7 **Lesson 41: Exercise A 1.** $P847.95 \div 3 = N$ 2. $P496.00 \div 24 = N$ 3. $P25.00 \div 100 = N$ 4. $P35.00 \div 5 = N$ 5. $P450 \div 6 = N$ 6. $P85.00 \div 10 = N$ 7. 5, 412.6 $\div 4 = N$ 8. $P742.60 \div 4 = N$ 9. $811.125 \div 4.5 = N$ 10. $15.45 \div 3 = N$ **Exercise B 1.** $P1, 129.75 \div 4 = N$ 2. $P576.00 \div 28 = N$ 3. $P75.00 \div 100 = N$ 4. $P65.00 \div 6 = N$ 5. $P560 \div 6 = N$ 6. $P136 \div 12 = N$ 7. 5, 786.7 kg $\div 6 = N$ 8. $P968.80 \div 4 = N$ 9. $874.80 \text{ cavans} \div 6.5 = N$ 10. $18.62 \text{ kg} \div 4 = N$

Lesson 42: Exercise A 1. 12 weeks 2. 4 3. 12 plates 4. 8 employees 5. 4.09 kg 6. 5 sons 7. 7m 8. $P184.3$ 9. 15 weeks 10. 1, 125.7 kg **Exercise B 1.** $P15, 495.45$ 2. $P46.73$ per hr. 3. $P118.85$ 4. 1, 184 pot holders 5. 1.72 hrs. 6. $P31.50$ 7. 70 packs 8. 7 liters 9. $P19.85$ per hr. 10. 10.9 m **Lesson 43: Exercise A 1.** $P20.40 \div P 0.85 = N$; $N = 24$ candies 2. $3.5 \div .25 = N$; $N = 14$ jars 3. $12.45 \div .35 = N$; $N = 35$ pcs. 4. $P787.20 \div 20.50 = N$; $N = 38$ hours 5. $P698.75 \div 32.5 = N$; $N = P21.5/\text{hr.}$ 6. $324 \div 4.5 = N$; $N = 72$ km/hr. 7. $2.35 \div 0.05 = N$; $N = 47$ labels 8. $P122 \div 5 = N$; $N = P24.40$ 9. $75.5 \div 5 = N$; $N = 15.1$ points/round 10. $150 \div 2.5 = N$; $N = 60$ toy baskets **Exercise B 1.** $3.72 \div 12 = N$; $N = 0.31\text{m}$ 2. $8.5 \div .25 = N$; $N = 34$ jars 3. $42.45 \div .25 = N$; $N = 169$ pcs. 4. $P922.50 \div P20.50 = N$; $N = 45$ hours 5. $P798.75 \div 35.5 = N$; $N = P22.50$ 6. $3.45 \div 7.55 = N$; $N = 46\text{km/hr.}$ 7. $8.25 \div 0.15 = N$; $N = 55$ labels 8. $P151.50 \div 6 = N$; $N = P25.25$ 9. $85.5 \div 5 = N$; $N = 17.1$ points/round 10. $250 \div 5 = N$; $N = 50$ toy baskets **Lesson 44: Exercise A 1.** True 2. True 3. False 4. False 5. True 6. 3, 5 7. 2, 4, 6, 3 8. 2, 5, 10, 4 9. 2, 5, 10, 4 10. 2, 4 **Exercise B 1.** True 2. True 3. False 4. False 5. True 6. 2, 5, 10, 4 7. 5, 10, 2 8. 2, 6, 3 9. 2, 4, 6, 3 10. 2 **Lesson 45: Exercise A 1.** P

2. C 3. C 4. C 5. P 6. C 7. C 8. C 9. C 10. C
Exercise B 1. C 2. P 3. C 4. C 5. C 6. C 7. C
 8. C 9. C 10. P **Lesson 46: Exercise A 1.** 1,
 6, 2, 3 2. 1, 8, 2, 4 3. 1, 9, 3 4. 1, 10, 2, 5, 5,
 1, 12, 2, 6, 3, 4 6. 6, 8, 10, 12, 14 7. 9, 12,
 15, 18, 21 8. 12, 16, 20, 24, 28 9. 15, 20, 25,
 30, 35 10. 18, 24, 30, 36, 42 **Exercise B 1.**
 1, 14, 2, 7 2. 1, 15, 3, 5 3. 1, 16, 2, 8, 4 4. 1,
 18, 2, 9, 3, 6 5. 1, 20, 2, 10, 4, 5 6. 24, 32,
 40, 48, 56 7. 30, 40, 50, 60, 70 8. 36, 48, 60,
 72, 84 9. 45, 60, 75, 90, 105 10. 60, 80, 100,
 120, 140 **Lesson 47: Exercise A 1.** 3×3 or
 3^2 2. $2 \times 2 \times 3$ or $2^2 \times 3$ 3. $2 \times 2 \times 2 \times 3$ or $2^3 \times 3$
 4. 7×5 5. 2×23 6. $2 \times 2 \times 3 \times 5$ or $2^2 \times 3 \times 5$ 7.
 $2 \times 2 \times 2 \times 3 \times 3$ or $2^3 \times 3^2$ 8. $2 \times 3 \times 13$ 9. $3 \times 3 \times 5 \times 2$
 or $3^2 \times 5 \times 2$ 10. $5 \times 5 \times 3 \times 2$ or $5^2 \times 3 \times 2$
Exercise B 1. 2×5 2. 5×5 3. $3 \times 3 \times 3$ or 3^3 4.
 $2 \times 2 \times 2 \times 2 \times 2$ or 2^5 5. $2 \times 2 \times 2 \times 2 \times 3$ or $2^4 \times 3$ 6.
 $2 \times 2 \times 3 \times 5$ or $2^2 \times 3 \times 5$ 7. 83×1 8. $5 \times 5 \times 2 \times 2$ or
 $5^2 \times 2^2$ 9. $2 \times 2 \times 5 \times 11$ or $2^2 \times 5 \times 11$ 10. 61×5
Lesson 48: Exercise A 1. 2, 2, 2 2. 2, 5 3. 3,
 3 4. 2, 2, 3 5. 3, 2, 6. 2, 3, 3 7. 3, 2, 3 8. 2, 2,
 5 9. 2, 2, 5 10. 2, 2, 2, 3 **Exercise B 1.** 2, 2,
 7 2. 2, 2, 7 3. 3, 2, 5 4. 2, 3, 5 5. 2, 2, 2, 2, 2
 6. 2, 2, 2, 2, 2 7. 2, 2, 3, 3 8. 3, 13 9. 2, 2, 2,
 5 10. 2, 3, 7 **Lesson 49: Exercise A 1.** 3 2. 5
 3. 6 4. 8 5. 8 6. 2 7. 15 8. 10 9. 48 10. 6
Exercise B 1. 2 2. 5 3. 4 4. 4 5. 10 6. 5 7. 9
 8. 2 9. 5 10. 25 **Lesson 50: Exercise A**
 1. $3 = 3, \underline{6}, 9$
 $6 = \underline{6}, 12, 18$
 LCM = 6
 2. $6 = 6, 12, 18, \underline{24}$
 $8 = 8, 16, \underline{24}$
 LCM = 24
 3. $9 = 9, 18, 27, \underline{36}$
 $4 = 4, 8, 12, 16, 20, 24, 28, 32, \underline{36}$
 LCM = 36
 4. $10 = 10, 20, \underline{30}$
 $15 = 15, \underline{30}$
 LCM = 30
 5. $6 = 6, 12, 18, \underline{24}$
 $24 = \underline{24}, 48$
 LCM = 24
 6. $15 = 15, 30, \underline{45}$
 $9 = 9, 18, 36, \underline{45}$
 LCM = 45
 7. $8 = 8, 16, \underline{24}$
 $12 = 12, \underline{24}$
 LCM = 24
 8. $10 = 10, 20, 30, 40, 50, \underline{60}$

- $12 = 12, 24, 48, \underline{60}$
 LCM = 60
 9. $4 = 4, 8, 16, 20, 24, 28, 32, 36, 40, 44,$
 $\underline{48}$
 $12 = 12, 24, 36, \underline{48}$
 $16 = 16, 32, \underline{48}$
 LCM = 48
 10. $20 = 20, 40, \underline{60}$
 $40 = 40, \underline{60}$
 $60 = \underline{60}, 120$
 LCM = 60

Exercise B 1. 132 2. 84 3. 72 4. 144 5. 180
 6. 48 7. 45 8. 126 9. 48 10. 100

Lesson 51:

Exercise A **Exercise B**

- | | |
|-------------------|---------------------|
| 1. $\frac{1}{2}$ | 1. $\frac{1}{2}$ |
| 2. $\frac{1}{4}$ | 2. $\frac{1}{2}$ |
| 3. $\frac{1}{4}$ | 3. $\frac{1}{2}$ |
| 4. $\frac{1}{3}$ | 4. $\frac{0}{12}$ |
| 5. $\frac{2}{3}$ | 5. $\frac{4}{2}$ |
| 6. $\frac{3}{4}$ | 6. $\frac{2}{3}$ |
| 7. $\frac{5}{12}$ | 7. $\frac{4}{7}$ |
| 8. $\frac{3}{5}$ | 8. $\frac{9}{8}$ |
| 9. $\frac{5}{6}$ | 9. $\frac{8}{14}$ |
| 10. $\frac{3}{8}$ | 10. $\frac{11}{18}$ |

Lesson 52:

Exercise A **Exercise B**

- | | |
|--------------------|----------------------|
| 1. .25 | 1. 0.25 |
| 2. .5 | 2. 0.75 |
| 3. .20 | 3. 0.25 |
| 4. .33 | 4. 0.2 |
| 5. .38 | 5. 0.5 |
| 6. $\frac{6}{10}$ | 6. $\frac{49}{100}$ |
| 7. $\frac{8}{100}$ | 7. $\frac{55}{1000}$ |

$$8. \frac{58}{100} \quad 8. 12\frac{22}{1000}$$

$$9. \frac{173}{1000} \quad 9. 6\frac{8}{100}$$

$$10. \frac{6}{1000} \quad 10. 15\frac{9}{1000}$$

Lesson 53: Exercise A 1. 2 2. 6 3. 3 4. 4 5. 15 6. 3 7. 9 8. 6 9. 48 10.

$$\frac{9}{27}$$

Exercise B 1. 2 2. 27 3. 10 4. 12 5. 48 6. 6 7. 1 8. 45 9. 5 10.

$$\frac{12}{16}$$

Lesson 54: Exercise A 1. 4 2. 8 3. 1 4. 4 5. 4 6. 16 7. 3 8. 12 9. 12 10. 20 **Exercise B** 1. 4 2. 12 3. 4 4. 10 5. 21 6. 40 7. 3 8. 3 9. 36 10. 5 **Lesson 55:**

Exercise A **Exercise B**

1. $\frac{1}{2}$	1. $\frac{1}{3}$
2. $\frac{1}{3}$	2. $\frac{1}{5}$
3. $\frac{1}{3}$	3. $\frac{1}{3}$
4. $\frac{3}{5}$	4. $\frac{2}{5}$
5. $\frac{3}{4}$	5. $\frac{2}{3}$
6. $\frac{1}{5}$	6. $\frac{5}{7}$
7. $\frac{1}{3}$	7. $\frac{7}{9}$
8. $\frac{7}{10}$	8. $\frac{3}{5}$
9. $\frac{3}{4}$	9. $\frac{4}{9}$
10. $\frac{3}{7}$	10. $5\frac{1}{110}$

Lesson 56:
Exercise A

$$1. \frac{5}{2}$$

$$2. \frac{11}{4}$$

$$3. \frac{9}{5}$$

$$4. \frac{17}{5}$$

$$5. \frac{17}{6}$$

$$6. 2\frac{1}{2}$$

$$7. 4\frac{1}{3}$$

$$8. 3\frac{2}{5}$$

$$9. 10\frac{1}{2}$$

$$10. 6\frac{3}{4}$$

Exercise B

$$1. \frac{10}{3}$$

$$2. \frac{14}{4}$$

$$3. \frac{37}{9}$$

$$4. \frac{22}{5}$$

$$5. \frac{38}{7}$$

$$6. 5\frac{1}{5}$$

$$7. 5\frac{1}{6}$$

$$8. 7\frac{3}{5}$$

$$9. 5\frac{1}{9}$$

$$10. 7\frac{3}{8}$$

Lesson 57: Exercise A 1. 0 2. $\frac{1}{2}$ 3. 1 4. 0 5.

1 6. $\frac{1}{2}$ 7. 1 8. 1 9. 0 10. 0 **Exercise B** 1. 1

2. 1 3. $\frac{1}{2}$ 4. 1 5. 0 6. 1 7. 1 8. 1 9. 1 10. 0

Lesson 58: Exercise A 1. 15 2. 21 3. 12 4. 9 5. 30 6. 24 7. 35 8. 45 9. 24 10. 18 **Exercise B** 1. 12 2. 30 3. 21 4. 24 5. 30 6. 12 7. 10 8. 12 9. 30 10. 36

Lesson 59: Exercise A 1. > 2. < 3. > 4. < 5. > 6. > 7. > 8. > 9. < 10. = **Exercise B** 1. < 2. < 3. > 4. < 5. < 6. > 7. > 8. > 9. < 10. =

Lesson 60: Exercise A 1. 12 2. 30 3. 30 4. 36 5. 24 6. 21 7. 12 8. 6 9. 36 10. 30

Exercise B 1. 6 2. 8 3. 8 4. 14 5. 12 6. 16 7. 20 8. 24 9. 18 10. 48

Lesson 61: Exercise A

1. $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$	6. $\frac{2}{3}, \frac{4}{6}, \frac{1}{5}$
2. $\frac{2}{4}, \frac{2}{10}, \frac{2}{12}$	7. $\frac{4}{4}, \frac{3}{8}, \frac{2}{7}$
3. $\frac{6}{24}, \frac{5}{8}, \frac{3}{4}$	8. $\frac{3}{5}, \frac{5}{12}, \frac{2}{10}$
4. $2\frac{1}{10}, 2\frac{3}{10}, 2\frac{6}{10}$	9. $8\frac{1}{3}, 5\frac{2}{7}, 3\frac{1}{5}$
5. $3\frac{4}{6}, 7\frac{1}{8}, 7\frac{7}{8}$	10. $3\frac{7}{14}, 3\frac{4}{6}, 3\frac{2}{7}$

Exercise B

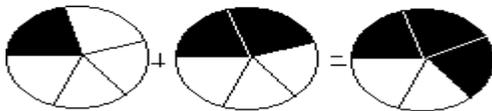
1. $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$
2. $\frac{1}{5}, \frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \frac{1}{9}, \frac{1}{10}, \frac{1}{11}, \frac{1}{12}$
3. $\frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \frac{1}{9}, \frac{1}{10}, \frac{1}{11}, \frac{1}{12}$
4. $3 \frac{1}{2}, 3 \frac{1}{3}, 3 \frac{1}{4}, 3 \frac{1}{5}, 3 \frac{1}{6}$
5. $1 \frac{1}{2}, 1 \frac{1}{3}, 1 \frac{1}{4}, 1 \frac{1}{5}, 1 \frac{1}{6}$
6. $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \frac{1}{9}, \frac{1}{10}, \frac{1}{11}, \frac{1}{12}$
7. $\frac{1}{6}, \frac{1}{7}, \frac{1}{8}, \frac{1}{9}, \frac{1}{10}, \frac{1}{11}, \frac{1}{12}$
8. $3 \frac{1}{2}, 3 \frac{1}{3}, 2 \frac{1}{4}, 2 \frac{1}{5}, 2 \frac{1}{6}, 2 \frac{1}{7}, 2 \frac{1}{8}, 2 \frac{1}{9}, 2 \frac{1}{10}, 2 \frac{1}{11}, 2 \frac{1}{12}$
10. $10 \frac{1}{2}, 9 \frac{1}{3}, 8 \frac{1}{4}, 7 \frac{1}{5}, 6 \frac{1}{6}, 5 \frac{1}{7}, 4 \frac{1}{8}, 3 \frac{1}{9}, 2 \frac{1}{10}, 1 \frac{1}{11}, 1 \frac{1}{12}$

Lesson 62: Exercise A 1. 1 kg 2. $\frac{2}{8}$ or $\frac{1}{4}$ 3. $\frac{6}{8}$ or $\frac{3}{4}$ 4. $\frac{2}{4}$ or $\frac{1}{2}$ 5. Joe = $\frac{2}{8}$ or $\frac{1}{4}$ 6. $\frac{4}{4}$ or 1 7. $2 \frac{1}{2}$ 8. $1 \frac{3}{4}$ 9. $\frac{4}{8}$ or $\frac{1}{2}$ 10. $\frac{2}{10}$ or $\frac{1}{5}$
Exercise B 1. $\frac{3}{4}$ 2. $\frac{4}{8}$ or $\frac{1}{2}$ 3. $\frac{6}{8}$ or $\frac{3}{4}$ 4. $\frac{2}{4}$ or $\frac{1}{2}$ 5. Joe = $\frac{2}{12}$ or $\frac{1}{6}$ 6. $\frac{4}{6}$ or $\frac{2}{3}$ 7. 3m 8. $\frac{4}{10}$ or $\frac{2}{5}$ 9. $\frac{2}{12}$ or $\frac{1}{6}$ 10. $6 \frac{1}{2}$

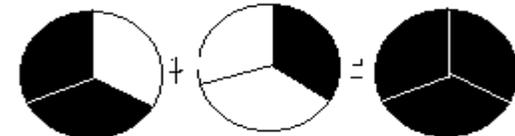
Lesson 63: Exercise A

A.

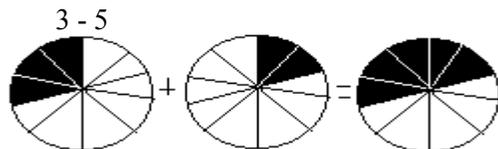
1 - 2



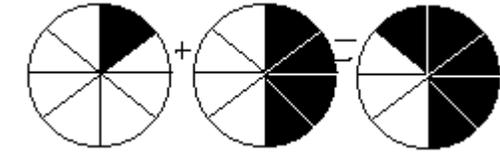
$$\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$$



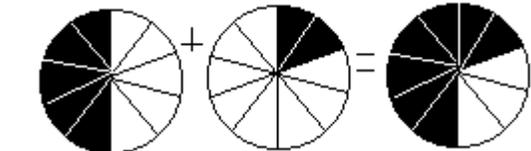
$$\frac{2}{3} + \frac{1}{3} = \frac{3}{3} \text{ or } 1$$



$$\frac{3}{10} + \frac{2}{10} = \frac{5}{10} \text{ or } \frac{1}{2}$$

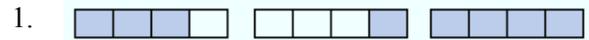


$$\frac{3}{10} + \frac{2}{10} = \frac{5}{10}$$

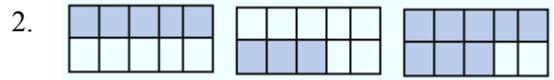


$$\frac{6}{12} + \frac{2}{12} = \frac{8}{12} \text{ or } \frac{2}{3}$$

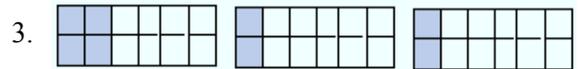
B.



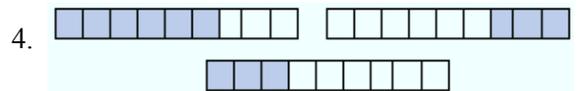
$$\frac{3}{4} - \frac{1}{4} = \frac{2}{4} \text{ or } \frac{1}{2}$$



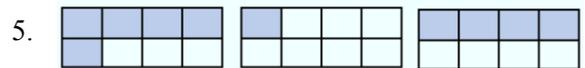
$$\frac{5}{10} - \frac{3}{10} = \frac{2}{10} \text{ or } \frac{1}{5}$$



$$\frac{4}{12} - \frac{2}{12} = \frac{2}{12} \text{ or } \frac{1}{6}$$



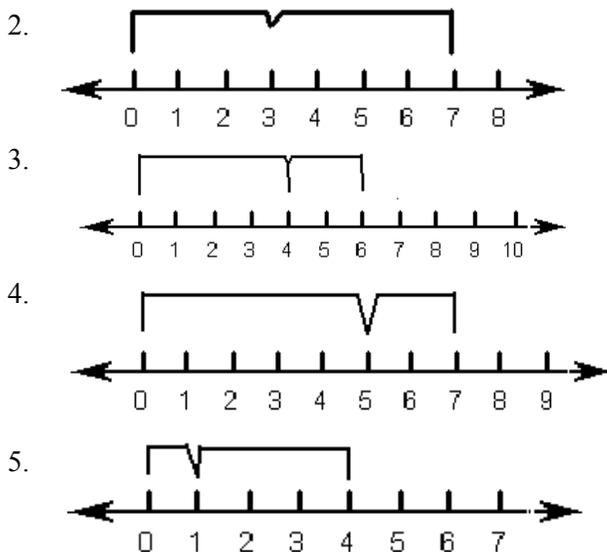
$$\frac{6}{9} - \frac{3}{9} = \frac{3}{9} \text{ or } \frac{1}{3}$$



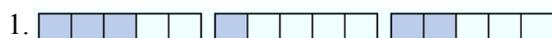
$$\frac{5}{8} - \frac{1}{8} = \frac{4}{8} \text{ or } \frac{1}{2}$$

Exercise B

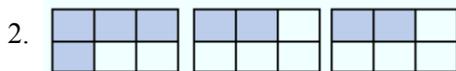




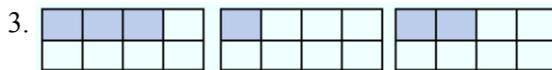
B.



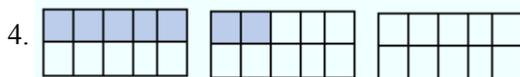
$$\frac{3}{5} - \frac{1}{5} = \frac{2}{5}$$



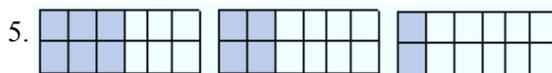
$$\frac{4}{6} - \frac{2}{6} = \frac{2}{6} \text{ or } \frac{1}{3}$$



$$\frac{3}{8} - \frac{1}{8} = \frac{2}{8} \text{ or } \frac{1}{4}$$



$$\frac{5}{10} - \frac{2}{10} = \frac{3}{10}$$



$$\frac{6}{12} - \frac{4}{12} = \frac{2}{12} \text{ or } \frac{1}{6}$$

Lesson 64: Exercise A

- $0 + 1 = 1$
- $\frac{1}{2} + 1 = 1\frac{1}{2}$
- $0 + 1 = 1$
- $1 + \frac{1}{2} = 1\frac{1}{2}$
- $\frac{1}{2} + 0 = \frac{1}{2}$

- $1 - \frac{1}{2} = \frac{1}{2}$
- $\frac{1}{2} - 0 = \frac{1}{2}$
- $1 - 1 = 0$
- $1 + 5 = 6$
- $7 - 2 = 5$

Exercise B

- $1 + 0 = 1$
- $0 + 0 = 0$
- $1 + 0 = 1$
- $\frac{1}{2} + 1 = 1\frac{1}{2}$
- $1 + \frac{1}{2} = 1\frac{1}{2}$
- $1 - 0 = 1$
- $1 - \frac{1}{2} = \frac{1}{2}$
- $\frac{1}{2} - \frac{1}{2} = 0$
- $10 - 4 = 6$
- $5 - 1 = 4$

Lesson 65:

Exercise A

- $\frac{3}{4}$
- $\frac{5}{6}$
- $\frac{8}{10}$ or $\frac{4}{5}$
- $\frac{10}{8}$ or $\frac{5}{4}$
- $\frac{12}{12}$ or 1
- $5\frac{5}{8}$
- $7\frac{6}{9}$ or $7\frac{2}{3}$
- $11\frac{9}{10}$
- $5\frac{5}{15}$
- $6\frac{4}{20}$ or $6\frac{1}{5}$

Exercise B

- $\frac{5}{9}$
- $\frac{10}{16}$ or $\frac{5}{8}$
- $\frac{15}{20}$ or $\frac{3}{4}$
- $\frac{8}{24}$ or $\frac{1}{3}$
- $\frac{10}{30}$ or $\frac{1}{3}$
- $21\frac{18}{20}$ or $21\frac{9}{10}$
- $37\frac{22}{28}$ or $37\frac{11}{14}$
- $48\frac{15}{30}$ or $48\frac{1}{2}$
- $25\frac{5}{36}$
- $15\frac{20}{60}$ or $15\frac{1}{3}$

Lesson 66: Exercise A

- $\frac{12}{8}$ or $1\frac{4}{8}$ or $1\frac{1}{2}$
- $\frac{24}{21}$ or $1\frac{3}{21}$ or $1\frac{1}{7}$
- $\frac{37}{28}$ or $1\frac{9}{28}$
- $6\frac{12}{12}$ or 7
- $21\frac{40}{25}$ or $22\frac{15}{25}$ or $22\frac{3}{5}$
- $\frac{6}{24}$ or $\frac{1}{4}$
- $\frac{6}{18}$ or $\frac{1}{3}$
- $\frac{6}{16}$ or $\frac{3}{8}$
- $5\frac{9}{8}$ or $6\frac{1}{8}$
- $2\frac{2}{4}$ or $2\frac{1}{2}$

Exercise B

- $\frac{45}{35}$ or $1\frac{10}{35}$ or $1\frac{2}{7}$
- $\frac{56}{48}$ or $1\frac{8}{48}$ or $1\frac{1}{6}$
- $\frac{35}{55}$ or $1\frac{20}{55}$ or $1\frac{4}{11}$
- $21\frac{40}{35}$ or $22\frac{5}{35}$ or $22\frac{1}{7}$
- $9\frac{32}{42}$ or $9\frac{16}{21}$
- $\frac{6}{40}$ or $\frac{3}{20}$
- $\frac{4}{40}$ or $\frac{1}{10}$
- $\frac{8}{20}$ or $\frac{4}{5}$
- $1\frac{1}{5}$
- $4\frac{3}{6}$ or $4\frac{1}{2}$

Lesson 67:

Exercise A

- $\frac{7}{12}$
- $\frac{12}{12}$ or 1
- $\frac{19}{20}$
- $\frac{22}{24}$ or $\frac{11}{12}$
- $\frac{10}{14}$ or $\frac{5}{7}$
- $8\frac{5}{6}$
- $7\frac{3}{8}$
- $7\frac{4}{12}$ or $7\frac{1}{3}$
- $12\frac{11}{12}$
- $13\frac{9}{14}$

Lesson 68:

Exercise A

- $\frac{1}{24}$
- $\frac{1}{21}$
- $\frac{4}{15}$
- $\frac{3}{8}$
- $\frac{10}{24}$ or $\frac{5}{12}$
- $2\frac{1}{8}$
- $3\frac{1}{30}$
- $5\frac{3}{8}$
- $3\frac{9}{20}$
- $4\frac{1}{4}$

Exercise B

- $\frac{6}{8}$ or $\frac{3}{4}$
- $\frac{5}{10}$ or $\frac{1}{2}$
- $\frac{9}{12}$ or $\frac{3}{4}$
- $\frac{13}{24}$
- $\frac{12}{18}$ or $\frac{2}{3}$
- $4\frac{11}{18}$
- $8\frac{5}{6}$
- $10\frac{7}{20}$
- $16\frac{9}{14}$
- $10\frac{11}{30}$

Exercise B

- $\frac{2}{12}$ or $\frac{1}{6}$
- $\frac{20}{77}$
- $\frac{32}{90}$ or $\frac{16}{45}$
- $\frac{7}{24}$
- $\frac{5}{14}$
- $7\frac{7}{72}$
- $6\frac{16}{35}$
- $7\frac{3}{60}$ or $7\frac{1}{20}$
- $4\frac{1}{10}$
- $15\frac{1}{10}$

Lesson 69:

Exercise A

- $\frac{3}{4}$
- $\frac{4}{5}$
- $\frac{5}{6}$
- $1\frac{1}{9}$ or $1\frac{2}{9}$
- $\frac{8}{4}$ or 2
- $\frac{6}{6}$ or 1
- $\frac{8}{15}$
- $\frac{7}{12}$
- $\frac{5}{12}$
- $\frac{9}{20}$

Exercise B

- $\frac{45}{60}$ or $\frac{3}{4}$
- $\frac{15}{20}$ or $\frac{3}{4}$
- $\frac{12}{10}$ or $1\frac{2}{10}$ or $1\frac{1}{5}$
- $\frac{13}{12}$ or $1\frac{1}{12}$
- $\frac{17}{12}$ or $1\frac{5}{12}$
- $\frac{8}{10}$
- $\frac{18}{15}$ or $1\frac{3}{15}$ or $1\frac{1}{5}$
- $\frac{12}{14}$ or $\frac{6}{7}$
- $\frac{17}{12}$ or $1\frac{5}{12}$
- $\frac{15}{18}$ or $\frac{5}{6}$

Lesson 70: Exercise A

- $\frac{5}{4}$
- $\frac{13}{12}$
- 3
- $\frac{493}{42}$
- $\frac{1}{3}$
- $\frac{1}{2}$
- $\frac{2}{3}$
- $\frac{1}{8}$ hectare
- $\frac{29}{36}$
- $\frac{3}{8}$
- $\frac{7}{5}$

Lesson 71:

Exercise A

- $\frac{7}{8}$
- $7\frac{10}{18}$ or $7\frac{5}{9}$
- $2\frac{29}{35}$
- $13\frac{14}{12}$ or $14\frac{2}{12}$ or $14\frac{1}{6}$
- $8\frac{21}{18}$ or $9\frac{3}{18}$ or $9\frac{1}{6}$
- $2\frac{19}{36}$
- $4\frac{1}{36}$
- $3\frac{13}{20}$
- $5\frac{14}{15}$
- $6\frac{17}{18}$

Exercise B

- $2\frac{7}{8}$
- $5\frac{10}{18}$ or $5\frac{5}{9}$
- $8\frac{19}{35}$
- $18\frac{8}{15}$
- $4\frac{14}{40}$ or $4\frac{7}{20}$
- $3\frac{13}{20}$
- $1\frac{14}{15}$
- $10\frac{61}{104}$
- $\frac{18}{40}$ or $\frac{9}{20}$
- $6\frac{17}{18}$

Lesson 72: Exercise A

- $\frac{3}{5} + \frac{3}{5} = N$; $N = \frac{6}{5}$ or $1\frac{1}{5}$
- $\frac{1}{8} + \frac{1}{7} = N$; $N = \frac{15}{56}$
- $\frac{3}{4} + \frac{1}{4} = N$; $N = \frac{4}{4}$ or 1
- $\frac{3}{5} + \frac{4}{5} = N$; $N = \frac{7}{5}$ or $1\frac{2}{5}$
- $1\frac{2}{8} + \frac{5}{8} = N$; $N = 1\frac{7}{8}$
- $2\frac{3}{4} - 1\frac{12}{5} = N$; $N = 1\frac{17}{20}$
- $8\frac{4}{5} - 7\frac{2}{3} = N$; $N = 1\frac{2}{15}$
- $20\frac{4}{7} - 19\frac{2}{7} = N$; $N = 1\frac{2}{7}$
- $35\frac{2}{5} - 8\frac{1}{3} = N$; $N = 27\frac{1}{15}$ bags
- $12\frac{1}{5} - 3\frac{4}{5} = N$; $N = 8\frac{7}{10}m$

Exercise B

- $\frac{1}{4} + \frac{1}{6} + \frac{1}{3} = N$; $N = \frac{9}{12}$ or $\frac{3}{4}$
- $7\frac{1}{2} + 5\frac{4}{5} = N$; $N = 13\frac{3}{10}$
- $3\frac{3}{4} + 5\frac{1}{2} = N$; $N = 9\frac{1}{4}$
- $2\frac{4}{7} + 5\frac{2}{3} = N$; $N = 8\frac{5}{21}$
- $2\frac{1}{2} + 3\frac{3}{4} = N$; $N = 5\frac{5}{4}$ or $6\frac{1}{4}$
- $3\frac{1}{4} - 1\frac{3}{4} = N$; $N = 1\frac{2}{4}$ or $1\frac{1}{2}$
- $1\frac{9}{5} - 1\frac{1}{2} = N$; $N = 1\frac{3}{10}$
- $5\frac{2}{3} - 3\frac{1}{4} = N$; $N = 2\frac{5}{12}$
- $15\frac{1}{2} - 2\frac{1}{2} = N$; $N = 13$
- $39\frac{5}{8} - 38\frac{5}{6} = N$; $N = 1\frac{15-20}{24}$

Lesson 73: Exercise A 1. Number of hours Liza work in their store. 2. $6\frac{1}{2}$, $3\frac{3}{4}$ 3. In all 4. Addition 5. $9\frac{5}{4}$ hours 6. more number of hours father spend working on his farm than on his fishpond 7. $6\frac{2}{3}$, $3\frac{1}{4}$ 8. How many more...than 9. Subtraction 10. $3\frac{5}{12}$ hours

Exercise B 1. Number of kilograms of meat mother bought. 2. $1\frac{1}{2}$, $2\frac{2}{3}$, $1\frac{1}{4}$ 3. In all 4. addition 5. $5\frac{5}{12}$ kgs 6. Number of kg of chicken left 7. $3\frac{1}{2}$, $2\frac{1}{3}$ 8. left 9. subtraction 10. $1\frac{1}{6}$ kg

Lesson 74: Exercise A $\frac{1}{4}$ brown + $\frac{1}{4}$ refined = 1 cup of sugar 2. $\frac{5}{2}$ kilograms 3. Alma is heavier by $\frac{5}{2}$ 4. $\frac{5}{6}$ 5. $14\frac{1}{2}$ 6. $4\frac{1}{4}$ 7. 2 8. $\frac{1}{5}$ 9. $\frac{1}{2}$ 10. $5\frac{2}{3}$

Exercise B 1. $1\frac{5}{12}$ 2. $3\frac{1}{2}$ 3. Gabriela is heavier by $2\frac{1}{2}$ 4. $\frac{7}{6}$ 5. $17\frac{1}{2}$ 6. $8\frac{1}{4}$ 7. 3 8. $\frac{2}{12}$ or $\frac{1}{6}$ 9. $\frac{5}{10}$ or $\frac{1}{2}$ 10. $6\frac{2}{3}$

Lesson 75: Exercise A

- $(5\frac{2}{3} + 6\frac{4}{5}) + 8\frac{1}{2} = N$, $N = 19\frac{59}{30}$
- $23\frac{1}{2} + 18\frac{3}{4} = N$, $N = 42$
- $4\frac{1}{3} + 5\frac{1}{4} = N$, $N = 18\frac{1}{3}$
- $1\frac{1}{3} + 2\frac{1}{2} + \frac{3}{4} = N$, $N = 3\frac{19}{12}$ or $4\frac{7}{12}$
- $5\frac{1}{6} + 3\frac{3}{4} = N$, $N = 8\frac{11}{12}$

Exercise B

- | | |
|----------------------|-----------------------------|
| 1.) $250\frac{1}{2}$ | 2.) $36\frac{2}{5}$ |
| $\underline{-120}$ | $\underline{-8\frac{1}{2}}$ |
| $130\frac{1}{2}$ | $N = 27\frac{9}{10}$ |
- $6\frac{2}{3} - 5\frac{1}{2} = N$, $N = 1\frac{1}{6}$
- $3\frac{3}{4} - 2\frac{1}{2} = N$, $N = 1\frac{1}{4}$
- $8 - (2\frac{1}{2} + 3\frac{3}{5}) = N$, $N = 1\frac{9}{10}$

Lesson 76: Exercise A 1. a. kilos of fish unsold, b. $18\frac{1}{2}$ kgs. of fish for sale, c. sold, unsold, d. subtraction 2. a. mangoes left, b. 5 baskets of mangoes, gave $1\frac{1}{4}$ baskets, sold $2\frac{1}{2}$ baskets, c. gathered, gave sold, d. subtraction, addition 3. a. pages unread, b. 500 pages original, $75\frac{1}{2}$ pages read, $200\frac{1}{4}$ pages unread, c. read, unread, d. addition and subtraction

Exercise B 1. a. How many much money left, b. $5\frac{1}{2}$ pesos originally, spent P $1\frac{1}{5}$ and P $3\frac{3}{10}$ left, c. spent, left, d. subtraction

2. a. weight of 3rd fish, b. 3 fishes – $4\frac{3}{5}$ all in all; one weighs $\frac{7}{8}$ kg another $1\frac{3}{4}$ kg. c. caught 3 fishes, one weighs, another weighs d. addition and subtraction 3. How many more hours is needed to complete 8 hours of work a day? B. 8 hrs a day, $1\frac{1}{4}$ hours every morning, $2\frac{1}{3}$ hours in the afternoon c. works only every morning and every afternoon, required d. subtraction

Lesson 77: Exercise A 1. $13\frac{2}{3}$ of basket unsold. 2. $2\frac{1}{2}$ eggs were left. 3. 10 $\frac{11}{12}$ kgs of palay remained 4. $\frac{5}{12}$ oranges left 5. $266\frac{1}{4}$ pages left 6. $1\frac{5}{12}$ mangoes left 7. 2 kgs. of fish unsold 8. $5\frac{3}{4}$ pesos left 9. $3\frac{13}{60}$ kgs is the weight of the 3rd fish 10. $3\frac{11}{20}$ hours more. **Exercise B:** 1. $11\frac{5}{12}$ calamansi baskets unsold. 2. $2\frac{19}{20}$ dozen eggs left 3. $16\frac{1}{4}$ kgs of palay left 4. $1\frac{1}{2}$ orange left 5. $191\frac{1}{4}$ pages to read 6. $\frac{1}{4}$ basket of mangoes left 7. 2 kgs of unsold fish 8. $6\frac{3}{4}$ pesos left 9. $4\frac{11}{12}$ weight of last fish 10. $2\frac{5}{12}$ hours more to make 8-hr work day.

Lesson 78:

Exercise A

- $\frac{2}{6}$ or $\frac{1}{3}$
- $\frac{1}{20}$
- $\frac{2}{3}$
- $\frac{1}{9}$
- $\frac{1}{25}$
- $\frac{1}{5}$
- $\frac{1}{12}$
- $\frac{3}{28}$
- $\frac{3}{4}$
- $\frac{1}{4}$

Exercise B

- $\frac{4}{25}$
- $\frac{2}{12}$ or $\frac{1}{6}$
- $\frac{1}{21}$
- $\frac{1}{16}$
- $\frac{1}{3}$
- $\frac{2}{15}$
- $\frac{3}{8}$
- $\frac{1}{2}$
- $\frac{3}{5}$
- $\frac{5}{24}$

Lesson 79:

Exercise A

1. $\frac{4}{5}$ 2. $1\frac{3}{40}$ 3. $\frac{3}{4}$ 4. $\frac{5}{3}$ 6. $2\frac{3}{10}$ 7. 14 8. $18\frac{12}{21}$
 5. $2\frac{18}{60}$ or $2\frac{3}{10}$ 9. $10\frac{3}{7}$ 10. $415\frac{1}{4}$

Exercise B

1. $\frac{6}{6}$ or 1 2. $\frac{14}{15}$ 3. $14\frac{19}{25}$ 4. $\frac{11}{16}$ 5. $1\frac{5}{6}$
 6. $6\frac{32}{35}$ 7. $1\frac{1}{21}$ 8. $\frac{5}{9}$ 9. $4\frac{19}{20}$ 10. $41\frac{2}{3}$

Lesson 80:

Exercise A

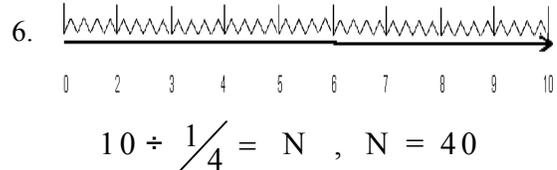
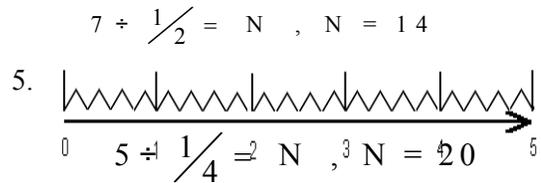
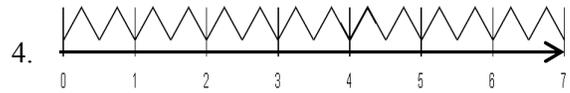
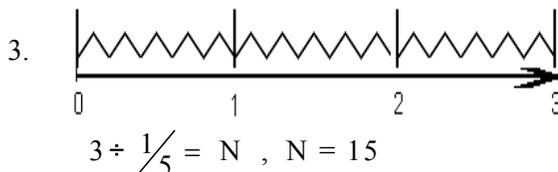
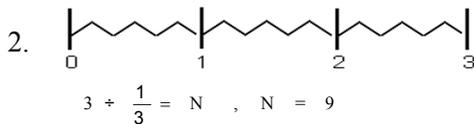
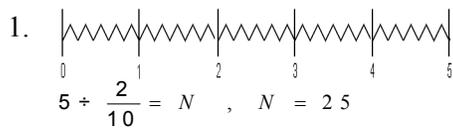
1. $\frac{6}{5}$ 2. $\frac{12}{8}$ 3. $\frac{10}{5}$ 4. $\frac{6}{3}$ 5. $\frac{1}{14}$
 6. $\frac{8}{3}$ 7. $\frac{12}{6}$ 8. $\frac{25}{40}$ 9. $\frac{1}{7}$ 10. $\frac{1}{15}$

Exercise B

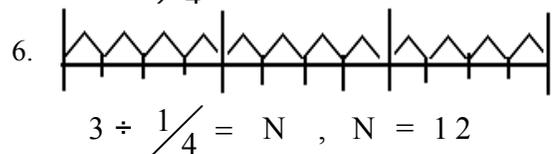
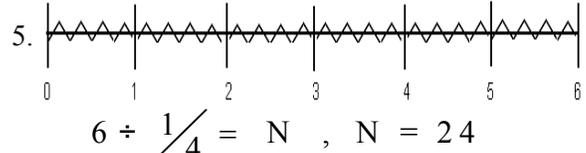
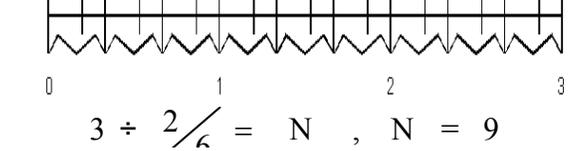
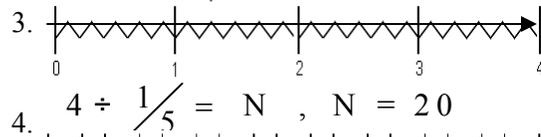
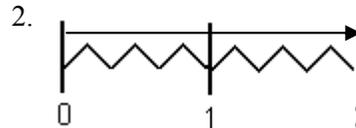
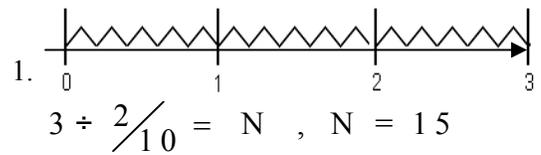
1. $\frac{3}{7}$ 2. $\frac{5}{3}$ 3. $\frac{4}{9}$ 4. $\frac{3}{15}$ 5. $\frac{2}{12}$
 6. $\frac{6}{1}$ 7. $\frac{10}{8}$ 8. $\frac{15}{5}$ 9. $\frac{5}{7}$ 10. $\frac{1}{6}$

Lesson 81: Exercise A 1. $6 \times 1\frac{1}{2} = n$

2. $4\frac{1}{4} + 2\frac{2}{3} = n$ 3. $1\frac{1}{8} \times 2\frac{2}{3} = n$ 4. $1\frac{1}{4} \times 4\frac{4}{5} = n$ 5. $1\frac{2}{3} \times 3\frac{4}{5} = n$ 6. $7 \times 3\frac{3}{4} = n$
 7. $12\frac{1}{2} \times 3\frac{1}{2} = n$ 8. $360 \times \frac{1}{10} = n$ 9. $2\frac{2}{3} \times 3\frac{1}{2} = n$ 10. $2\frac{1}{4} \times \frac{1}{2} = n$ **Exercise B** 1. $7 \times 2\frac{1}{2} = n$ 2. $3\frac{1}{2} \times 4\frac{4}{5} = n$ 3. $1\frac{1}{4} \times 2\frac{3}{4} = n$ 4. $1\frac{1}{3} \times 4\frac{4}{5} = n$ 5. $1\frac{3}{4} \times 5\frac{4}{5} = n$ 7. $24\frac{1}{2} \times 4\frac{2}{3} = n$ 8. $380 \times \frac{1}{5} = n$ 9. $3\frac{1}{4} \times 4\frac{1}{3} = n$ 10. $2\frac{2}{3} \times \frac{1}{4} = n$ **Lesson 82: Exercise A**



Exercise B



- Lesson 83: Exercise A** 1. 25 $\frac{2}{3}$ baskets 2. 67 $\frac{2}{3}$ glasses 3. 15 $\frac{1}{3}$ bars of soap 4. 16 $\frac{2}{15}$ kgs of sugar 5. 97 $\frac{1}{2}$ kilometers 6. 445 $\frac{9}{10}$ kgs of soap 7. 153 $\frac{3}{4}$ kwh 8. 14 $\frac{1}{6}$ kilometers 9. 249 kilograms of sugar 10. 30 $\frac{7}{8}$ dozens of muffin **Exercise B** 1. 17 $\frac{1}{10}$ baskets 2. 54 $\frac{1}{6}$ glasses 3. 6 $\frac{1}{3}$ bars of soap 4. 11 $\frac{1}{14}$ kgs of sugar 5. 49 $\frac{3}{8}$ km. 6.

439 $\frac{3}{8}$ kgs of soap 7. 121 $\frac{7}{8}$ kwh 8. 8 km
10. 23 $\frac{1}{3}$ dozens of muffin **Lesson 84:**

Exercise A

1. P130 2. $2\frac{3}{5}$ liters 3. 2 4. Joan, $2\frac{2}{3}$ 5. P25
6. $\frac{5}{28}$ 7. P25 8. 1 9. $5\frac{4}{16}$ or $5\frac{1}{4}$ 10. $18\frac{1}{5}$

Exercise B

1. P157.14 2. $3\frac{9}{10}$ 3. $4\frac{3}{4}$ 4. Jinky, $3\frac{3}{4}$ 5. P114
6. $\frac{34}{105}$ 7. P434 8. 3 9. $7\frac{13}{16}$ 10. $18\frac{1}{5}$

Lesson 85: Exercise A 1.P152 2. $\frac{1}{2}$ of the entire house 3. $91\frac{2}{3}$ 4. 9 pupils 5.57.5 pages or $57\frac{1}{2}$ pages 6. $64\frac{1}{8}$ calories 7.

P383.33

8. $386\frac{2}{3}$ stamps 9. 50 minutes 10. P2,500

Exercise B 1. P232 2. $\frac{1}{2}$ part of the entire house 3. 49.06 Kg 4. 20 pupils 5. 57 pages 6. 48.88 calories 7. P330 8. 333 $\frac{1}{3}$ USA Stamps 9. 40 minutes 10. P2,777.78 **Lesson**

86: Exercise A 1. 10 2. 4 3. 6 4. 32 5. 20 6. 16 7. 27 8. 10

9. 3 10. 5 **Exercise B 1.** 18 2.10 3.3

4. $\frac{5}{2}$ 5. 24 6. 5 7. 2 8. $\frac{1}{2}$ 9. 3 10. 6

Lesson 87: Exercise A 1. 4 2.21 3.15 4. 12 5.40 6. $\frac{5}{6}$ 7. $\frac{2}{3}$ 8. $\frac{3}{4}$ 9. $\frac{22}{9}$ 10. 14/6

Exercise B 1. $\frac{40}{3} = 13\frac{1}{3}$ 2. $\frac{9}{2} = 4\frac{1}{2}$ 3. 14 4. $\frac{24}{3} = 8$ 5. 16 6. $\frac{15}{6} = 2\frac{3}{6}$ or $2\frac{1}{2}$ 7.

$\frac{35}{20} = 1\frac{15}{20}$ or $1\frac{3}{4}$ 8. $\frac{54}{12} = 4\frac{6}{12}$ or $4\frac{1}{2}$
9. $\frac{40}{12} = 3\frac{4}{12}$ or $3\frac{1}{3}$ 10. $\frac{136}{16} = 8\frac{8}{16}$ or $8\frac{1}{2}$

Lesson 88: Exercise A 1. $\frac{5}{5}$ or $1\frac{1}{5}$
2. $\frac{9}{2}$ or $4\frac{1}{2}$ 3. $\frac{21}{8}$ or $2\frac{5}{8}$ 4. $\frac{2}{16}$ or $\frac{1}{8}$

5. $\frac{9}{12}$ or $\frac{3}{4}$ 6. $\frac{9}{7}$ or $1\frac{2}{7}$ 7. $1\frac{1}{5}$ 8. 15/11

9. $\frac{11}{2}$ or $5\frac{1}{2}$ 10. $\frac{55}{24}$ or $2\frac{7}{24}$

Exercise B 1. $\frac{16}{5}$ or $3\frac{1}{5}$ 2. $\frac{10}{18}$ or $\frac{5}{9}$
3. $\frac{16}{5}$ or $3\frac{1}{5}$ 4. $\frac{1}{25}$ or $2\frac{2}{5}$ 5. $\frac{41}{3}$ or $13\frac{2}{3}$
6. $\frac{19}{4}$ or $4\frac{3}{4}$ 7. $7\frac{3}{5}$ 8. $\frac{136}{12}$ or $11\frac{1}{3}$ 9.

$\frac{52}{45}$ or $1\frac{7}{45}$ 10. 19/14

Lesson 89: Exercise A

1. $7\frac{1}{2}$ days 2. $\frac{4}{5} + 3; N = \frac{4}{15}$

3. $(2\frac{1}{4} \times 4) + 6 = N; N =$

$1\frac{3}{6}$ or $1\frac{1}{2}$

4. $6\frac{2}{3} \div 3 = N; N = 2\frac{2}{9}$

5. $(9\frac{1}{2} - 1\frac{1}{2}) + 4 = N; N = 8\text{ kg}$

6. $12 + 1\frac{1}{3} = N; N = 9$

7. $12\frac{4}{5} + 8 = N; N = \frac{64}{40} =$

$1\frac{24}{40}$ or $1\frac{3}{5}$

8. 2/15 9. $\frac{1}{2}$ of an hour 10. $2\frac{1}{24}$

Exercise B

1. $6 \div \frac{2}{3} = N; N = 9$

2. $\frac{4}{5} + 4 = N; N = \frac{1}{5}$

3. $2\frac{1}{5} \times 4 + 5 = N; N = \frac{44}{5} = 1\frac{19}{5}$

4. $6\frac{1}{3} + 4 = N; N = 1\frac{7}{12}$

$(10\frac{1}{2} - 1\frac{1}{2}) + 5 = N; N =$

$1\frac{4}{5}\text{ kg}$

6. $14 + 1\frac{1}{5} = N; N = 11\frac{4}{5}$ or $11\frac{2}{3}$

$13\frac{4}{5} + 9 = N; N = \frac{69}{45} =$

$1\frac{24}{45}$ or $1\frac{8}{15}$

7. $7 + \frac{5}{6} = N; N = \frac{42}{6} = 8\frac{2}{6}$

9. $\frac{3}{5} + 9 = N; N = \frac{3}{45}$ or $\frac{1}{15}$

10. $2\frac{3}{4} + \frac{5}{7} = N; N = 3\frac{17}{20}$

Lesson 90: Exercise A 1. 5 2. 18 3.28 $\frac{1}{3}$

4. $1\frac{1}{5}$ 5. 25 6. $13\frac{5}{6}$ 7. $8\frac{1}{2}$ 8.4 $\frac{1}{4}$ 9. 1

$\frac{7}{25}$ km/hr. 10. $21\frac{1}{6}$ **Exercise B 1.** 8 or

8.4 or $\frac{42}{5}$ 2. 15 3. 47/10

5. $1\frac{23}{28}$ m 6. 18 7. $\frac{1}{8}$ 7. 42

8. $3\frac{51}{64}$ days 10 9. $5\frac{5}{6}$ 10. $8\frac{2}{25}$

Lesson 91: Exercise A

1. $27 \div 1\frac{1}{2} = N; N = 18\text{ boxes}$

2. $\frac{4}{5} + \frac{2}{5} = N; N = 2\text{ visitors}$

$2\frac{1}{4} + \frac{1}{2} =$

3. $N; N 4\frac{2}{4}$ or $4\frac{1}{2}$ chocolate powder

4. $8\frac{1}{4} + 7 = N; N = 1\frac{5}{28}\text{ m}$

5. $108 + 2 \frac{1}{4} = N; N = 48 \frac{km}{hr}$
6. $21 + 1 \frac{1}{4} = N; N = 16 \frac{4}{5} m$
7. $3 \frac{3}{4} + 5 = N; N = \frac{15}{20}$ or $\frac{3}{4} m$
8. $\frac{4}{5} + \frac{2}{5} = N; N = 2$
9. $\frac{7}{8} + 4 = N; N = \frac{7}{32}$ each
10. $50 + 2 \frac{2}{3} = N; N = 18$ uniforms

Exercise B

1. $30 + 1 \frac{1}{3} = N; N = 22$ boxes
2. $\frac{3}{4} + \frac{1}{4} = N; N = 3$ persons
 $3 \frac{1}{4} + \frac{1}{2} = N; N =$
 3. $6 \frac{2}{4}$ or $6 \frac{1}{2}$ chocolates
4. $9 \frac{1}{4} + 6 = N; N = 1 \frac{13}{24} m$
5. $112 + 2 \frac{1}{2} = N; N = 44 \frac{4}{5} \frac{km}{hr}$
6. $25 + 1 \frac{1}{3} = N; N = 18 \frac{3}{4} m$
7. $5 \frac{3}{4} + 6 = N; N = \frac{23}{24}$
8. $\frac{7}{8} + \frac{3}{5} = N; N = 1 \frac{11}{24}$
9. $\frac{9}{10} + 4 = N; N = \frac{9}{40}$
 $50 + 2 \frac{1}{3} = N; N =$
10. 21 polo shirts

Lesson 92: Exercise A 1. 5:12 2. 1:3 3.3:4
 4.2:1 5.1:4 6. $\frac{2}{3}$ 7. $\frac{4}{5}$ 8. $\frac{3}{1}$ 9. $\frac{7}{1}$ 10. $\frac{1}{4}$

Exercise B 1. 20:1 2. 1:4 3. 4:1 4. 1:5 5. 1:3
 6. $\frac{1}{4}$ 7. $\frac{1}{4}$ 8. $\frac{1}{10}$ 9. $\frac{2}{1}$ 10. $\frac{1}{3}$

Lesson 93: Exercise A 1. 12 2. 10 3. 21 4. 56 5. 8 6. 22 7. 25 8. 18 9. 63 10. 5

Exercise B 1. 1 2. 16 3. 10 4.19.8 5. 4 6. 22 7. 25 8. 18 9. 63 10. 5

Lesson 94: Exercise A 1. 5:3 2. 10:3 3. 5:2
 4. 3:5 5. 8:12 6. 10:20 7. 720:5 8. 8:3.5 9. 5:6 10. 212:12

Exercise B 1. 3:20 2. 15:2 3. 5:2 4. 15 5. 3: 6: 9 6. 490: 24 7. 3:4 8. 9. 5:6 10. 1060

Lesson 95: Exercise A 1. 9 2. 40 3. 12 4. P80 5. 45 6. 50 7.1, 170 km 8. P260 9. P75 10. 18

Exercise B 1. 490 women 2. 495 miles 3. P475 4. 18 minutes 5. 392 Science 6. 52, 91 7.18 Lions 8. 26 candies 9. P250,000, P375,000 10. 90 minutes

Lesson 96: Exercise A 1. 3.5 days 2. 1.5 days 3. 4 days 4. 40 trays 5.15 days 6.63 mins.

7. 2 liters 8. 9 days 9. 16 trays 10. 4.8 days

Exercise B 1. 3.5 days 2. 4.5 days 3. 6 days 4. 56 trays 5.18 days 6. 25 mins 7. 3 liters

8.12 days 9. 20 trays 10.5 days

Lesson 97:

Exercise A 1.Rate 2.Base 3.Percentage 4. 25% 5.74 6.30 7. 200 8. 12 % 9. 25 10.90

Exercise B

	Rate	Base	Percentage
1. 20% of 15 is 3	20%	15	3
2. 60 is 20% of 300	20%	300	60
3. 48 is 40% of 120	40%	120	48
4. 8% of 1,200 is 96	8%	1, 200	96
5. P100 is 4% of P2,500	4%	P2, 500	100
6. 180% of 200 is 360	180 %	200	360
7. 80% of 35 is 28	80%	35	28
8. 25% of 36 is 9	25%	36	9
9. 75% of 60 is 45	75%	60	45
10. 460 is 20% of 2,300	20%	2, 300	460

Lesson 98: Exercise A

1. N:12 = 5:4 ; N = 15m 2. 5:2 = 25 : N ; N = 10

3. N:10 = 28:5 ; N = 56 4. $\frac{6}{11} = \frac{84}{N}$, N = 154

5. $\frac{240}{3} = \frac{400}{N}$, N = 5 6. $\frac{3.5}{175} = \frac{5.7}{N}$, N = 285

7. $\frac{3}{5} = \frac{15}{N}$, N = 25 8. $\frac{275}{5} = \frac{N}{9}$, N = 495

9. $\frac{2}{130} = \frac{N}{780}$, N = 12 10. $\frac{1}{50} = \frac{4}{N}$, N = 200

Exercise B

1. N:15 = 9:6 , N = 22.5 m 2. 15:5 = 6:N , N = 2 tbsp.

3. N:12 = 25:6 , N = 50 4. 18:12 = 6:N , N = 9

5. $\frac{250}{5} = \frac{500}{N}$, N = 10 6. $\frac{4}{160} = \frac{5}{N}$, N = 200

7. $\frac{8}{15} = \frac{16}{N}$, N = 30 8. $\frac{280}{5} = \frac{N}{10}$, N = 560

9. $\frac{3}{195} = \frac{N}{780}$, N = 12 10. $\frac{2}{50} = \frac{4}{N}$, N = 100

Lesson 99: Exercise A 1. 10 2.12 3.18.75

4.60 5.390 6.412.5 7.140 8.189 9. 183.12 10.

414.96

Exercise B 1. 14.5 2. 9.75 3. 49.5 4. 50 5. 371.7 6. 270 7.675 8. 645.12 9. 2,945 10. 4, 680

Lesson 100: Exercise A 1. 50 % 2. 160 %

3. 20 % 4. 125 % 5. 133.33 % 6.250 % 7.75 % 8. 28.57 % 9. 85 % 10. 61.43 %

Exercise B 1. 75% 2. 130% 3. 20% 4. 138.3% 5. 167% 6. 233% 7. 83.3% 8. 71% 9. 228.5% 10. 44.3%

Lesson 101: Exercise A 1. 15 – d 2. 300 – a 3. 30 – j 4. 200 – b 5. 50 – h 6. 40

- e 7. 400 - c 8. 500 - f 9. 680 - g 10. 900 -
Exercise B 1. K 2.a 3.b 4.i 5.f 6.c 7.d 8.j
 9.e 10.h **Lesson 102: Exercise A 1.** 25 2. 30
 3. 5 4.5 5.4 6.20 7. 30 8. 9 9.120 10. 6
Exercise B 1. 15 2.28.5 3.7.5 4.6 5. 3.5 6.
 24 7.45 8.15 9. 160 10.12.5

Lesson 103: Exercise A 1. 22.85% 2.P93,
 500 3. P1, 860 4. 80% 5. P91,000 6. 5% 7.
 P6, 030 8. P59,500 9.P215,000 10. P30, 500
Exercise B 1.16.67% 2. P95, 000 3. P1,488
 4.50% 5. P75, 000 6. 4.81% 7. P8,100 8.
 P73, 800 9. P182,142.86 10.P32,000

Lesson 104: Exercise A 1. P560 2. 20
 months 3. P600 4. P1, 500 5. P1, 500 6. 2%
 7. 5 years and 9 months
 8. P57, 142.86 9. 4.57% 10.3 years

Exercise B 1. P945 2. 20 months 3. P700 4.
 P200 5. P1, 950 6. 2.17% 7. 9.14 years 8.
 P46, 875 9. 2.5% 10.5 years **Lesson 105:**
Exercise A

1. equally likely to happen 2. likely to
 happen 3. likely to happen 4. certain to
 happen 5. likely to happen 6. impossible to
 happen 7. likely to happen 8.likely to
 happen 9. likely to happen 10. equally likely
 to happen **Exercise B 1.** likely to happen 2.
 equally likely to happen 3. likely to happen
 4. equally likely to happen 5. equally likely
 to happen 6. impossible to happen 7.
 unlikely to happen 8. likely to happen 9.
 certain to happen 10.likely to happen

Lesson 106: Exercise A

1. $\frac{2}{10}$ 2. $\frac{3}{10}$ 3. $\frac{5}{10}$
 4. $\frac{5}{10}$ 5. $\frac{8}{10}$ 6. $\frac{7}{10}$

Exercise B

1. $\frac{4}{8}$ 2. $\frac{4}{8}$ 3. $\frac{1}{8}$ 4. $\frac{1}{8}$ 5. $\frac{4}{8}$

Lesson 107: Exercise A

1.+2 2. 4 3. -7 4. -7 5. 5 6.14 7. 13 8. -1 9.
 20 10. -9 **Exercise B 1.** -5,-4,-3,-2,
 -1,0,1,2,3,4,5,6,7 2. 1,2,3,4,5,6,7,8,9
 3. -1,0,1,2,3,4,5 4. -7,-6,-5,-4,-3,-2,-1,0,1
 5. -3,-2,-1,0,1,2,3,4,5,6 6. -3,-2,-
 1,0,1,2,3,4,5 7. 1,2,3,4,5,6,7, 8. -11,-10,-9,-
 8,-7,-6,-5,-4 9. 9,8,7,6,5,4,3,2,1 10. -10,-9,-
 8,-7,-6,-5,-4,-3

Lesson 108: Exercise A 1. < 2. < 3. > 4. >
 5. < 6. > 7. < 8. > 9. > 10.> **Exercise B 1.** >

2. > 3. < 4. < 5. > 6. > 7. > 8. > 9. < 10. <
Lesson 109: Exercise A 1. 8,6,2,0, -3, -4 2.
 4,2,0, -1, -3, -5 3. 7,4,3,0,-1, -2 4. 0, -2, -3,4,
 -6

5. 15, 10, 8, 0, -3, -7 6. -9, -7, -4, 5, 8
 7. -20, -10, -5, 0, 7 8. -21, -19, -7, 8, 12 9. -
 5, -2, 0, 3, 6 10. -30, -26, -17, 18, 23

Exercise B 1. 8, 4, 0, -5, -10 2. 15, 8, 1, -
 1, -8 3. 12, 6, 3, -9, -15 4. 8, 4, 0, -2, -6 5.
 25, 15, -5, -10, -20 6. -36, -24, -12, 18, 30
 7. -16, -8, 0, 4, 12 8. -15, -7, 7, 8, 14 9. -30,
 -20, 1, 5, 10

10. -45, -5, 15, 25, 35 **Lesson 110: Exercise**
A 1. Sphere 2.cone

3. rectangular prism 4. Pyramid 5.triangular
 prism 6. Cube 7. Cylinder 8.pyramid

Exercise B 1. Cylinder 2. Cube 3. triangle
 prism 4. Pyramid 5.pyramid 6. Sphere 7.
 Cone 8.rectangular prism **Lesson 111:**
Exercise A 1.c 2.b 3. A 4.a 5.f 6. E 7. B 8.
 A 9 .c 10. b

Exercise B

Spatial Figure	No. of Edges	No. of Faces	No. of Vertices
1. cone	0	1	1
2. sphere	0	0	0
3. cylinder	0	2	0
4. cube	12	6	0
5.pyramid	6	4	4
6. rectangle prism	12	6	8

Lesson 112: Exercise A 1.d 2.e 3.a 4.c 5.b

Exercise B 1. E 2.b 3.a 4.d 5.c **Lesson 113:**
Exercise A 1. 148 m²

2. 1, 004.80 cm² 3. 7, 536 cm² 4. 376.8 cm²
 5. 417.62 cm² 6. 13.5 m² 7. 5,700 cm² 8.
 2, 826 cm² 9. 1, 130.40 cm²

10. 340 cm² **Exercise B 1.** 148 cm²
 2. 1, 073.88 cm² 3. 4, 710 cm² 4. 471 cm²
 5. 577.76 cm² 6. 24 m² 7. 7, 600 cm² 8. 1,
 256 cm² 9. 1, 406.76 cm²

10. 505 **Lesson 114: Exercise A**

1. V = L x w x h or Lwh cubic units
 2. V = e³ cubic units (5x5x5) 3. V = 1/3 Bh
 cubic Units 4. V = πr²h cubic units 5. V =
 1/3 πr²h cubic units **Exercise B 1.** V = L x

w x h or Lwh cubic units 2. $V = \frac{1}{3} Bh$ cubic Units 3. $V = e^3$ cubic units 4. $V = \frac{1}{3} \pi r^2 h$ cubic units 5. $V = \pi r^2 h$ cubic units

6. Lesson 115: Exercise A

1. 1,000 cm^3 2. 34.8 m^3 3. 3,000 m^3
 4. 54 blocks 5. 10 cm 6. 2nd box = 20 cm^3 7.
 5. 25 m^3 8. 423.83 cm^3 9. 9.5 dm

- Exercise B 1.** 1,728 cm^3 2. 66 m^3
 3. 1,846.32 cm^3 4. 3,000 m^3 5. 236 blocks
 6. 7.5 cm 7. 2nd box = 272 cm^3
 8. 7.7 m^3 9. 888 m^3 **Lesson 116: Exercise A**

1. 5,652 mm^3
 2. 350.33 dm^3 3. 5,832 mm^3 4. 1,280 m^3 5.
 75.36 m^3 **Exercise B 1.** 10.584 m^3
 2. 2.36 m^3 3. 20 cm^3 4. 197.82 cm^3
 5. 233.33 m^3 **Lesson 117: Exercise A**
 1. 5382 2. 1781 3. 8692 4. 5926 5. 2904 6.
 8602 7. 3258 8. 2651 9. 2115 10. 9009

- Exercise B 1.** 3158 2. 8692
 3. 3237 4. 2651 5. 2259 6. 8620 7. 761 8.
 8375 9. 8408 10. 4167 **Lesson 118:**

- Exercise A 1.** 0.741 m^3 2. 7.535 m^3
 3. 1,340.23 m^3 4. 182.3 m^3 5. 502.245 m^3
 6. 7.94 m^3 7. 17.158 m^3 8. 8.653 m^3
 9. 1,562.871 m^3 10. 76.926 m^3 **Exercise B**
 1. 115.19 m^3 2. 131.047 m^3
 3. 18.118 m^3 4. 920.147 m^3 5. 78.241 m^3
 6. 2.345 m^3 7. 34.176 m^3 8. 17.185 m^3 9.
 236.102 m^3 10. 58.109 m^3 **Lesson 119:**

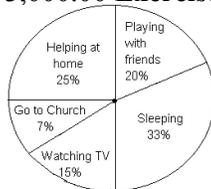
- Exercise A A. 1.** 158.247 m^3 2. 158,247 L
 3. 39.56 m^3 4. 1.319 m^3 5. 1,319 L **B. 1.**
 November 2. October 3. 50,712 L 4. 50.
 712 m^3

5. 12,678 L / 12.678 m^3 **Exercise B**
 1. 119.030 m^3 2. 119,030 L
 3. 29.7575 m^3 4. 0.25 m^3 5. 250 L
 6. April 7. March 8. 152,647 L 9. 152.647
 m^3 10. 38.162 m^3 / 38,162 L

Lesson 120: Exercise A 1. P1,200.00

2. Education 3. $\frac{1}{2}$ 4. P1,800.00 5.

P3,000.00 Exercise B



Lesson 121: Exercise A

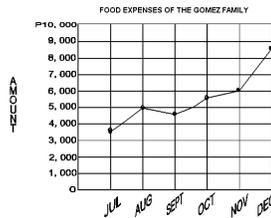
- A. 1.** Occupations of 400 parents of Brgy, Maharlika Elementary School pupils 2. 100

3. 40 4. 200 5. 160 **B. 1.** P600 2. P180 3. P60
 4. 780 5. 420

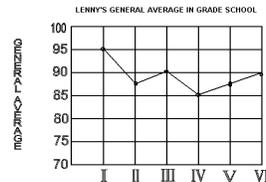
- Exercise B A. 1.** Different kinds of vegetables a farmer harvested in a week. 2. 150 kgs. 3. 125 kgs. 4. 61.75 kgs. 5. 100 kgs.

- B. 1.** Industry 2. 25% 3. Agriculture 4. 15%

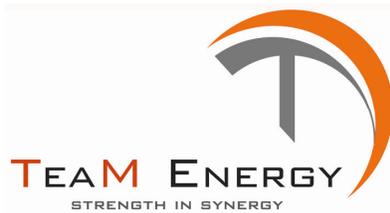
Lesson 141: Exercise A 1. December 2. P5,500



- Exercise B 1.** 97 2. I 3. 85 4. II and V
 5. III



The workbooks development write-shop was funded by



through the Committee on Education of the



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FOUNDATIONS

Workshop supervised by



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