What's Your Angle? 5th Grade

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What's Your Angle?

** Has an Answer Sheet*

MATH
GEOMETRY

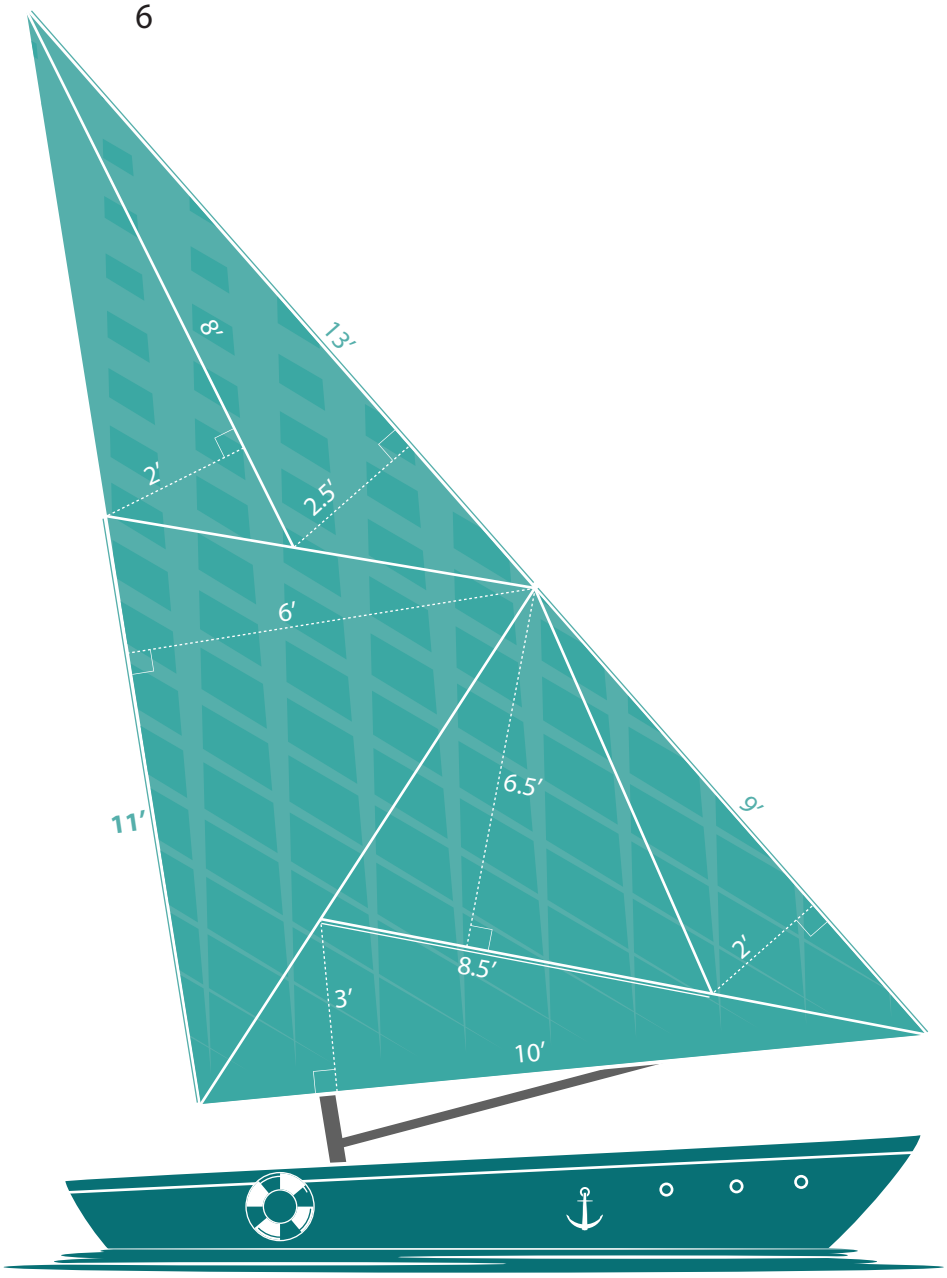
Aye Aye, Area!

1

Calculate the area of the sail by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**

Area = ½ (6x5) = 15 square feet



Sail area: _____

MATH
GEOMETRY

Aye Aye, Area!

Calculate the area of the sail by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**

Area = ½ (6x5) = 15 square feet

Sail area: _____

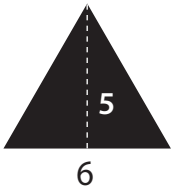
MATH
GEOMETRY

Aye Aye, Area!

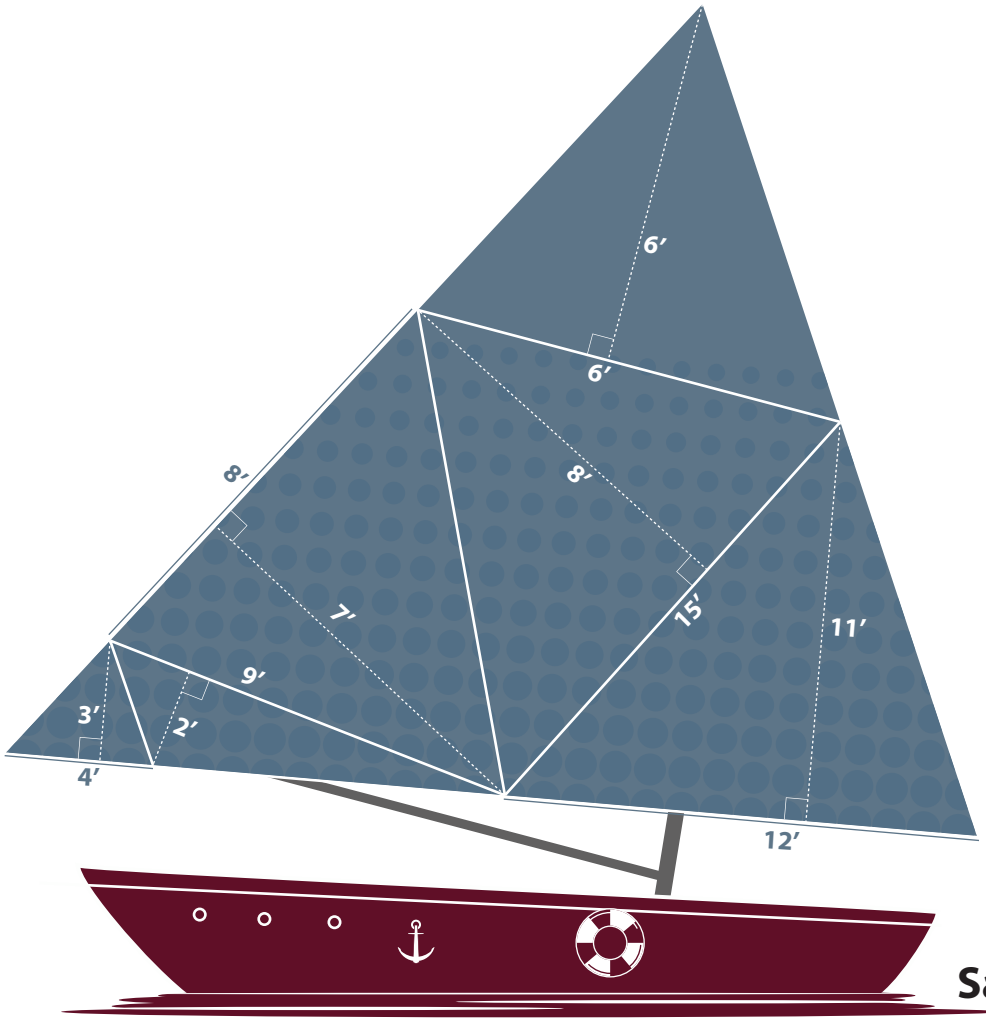
3

Calculate the area of the sail by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**



Area = ½ (6x5) = 15 square feet



Sail area: _____

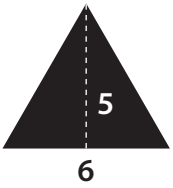
MATH
GEOMETRY

Aye Aye, Area!

4

Calculate the area of the sails by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**



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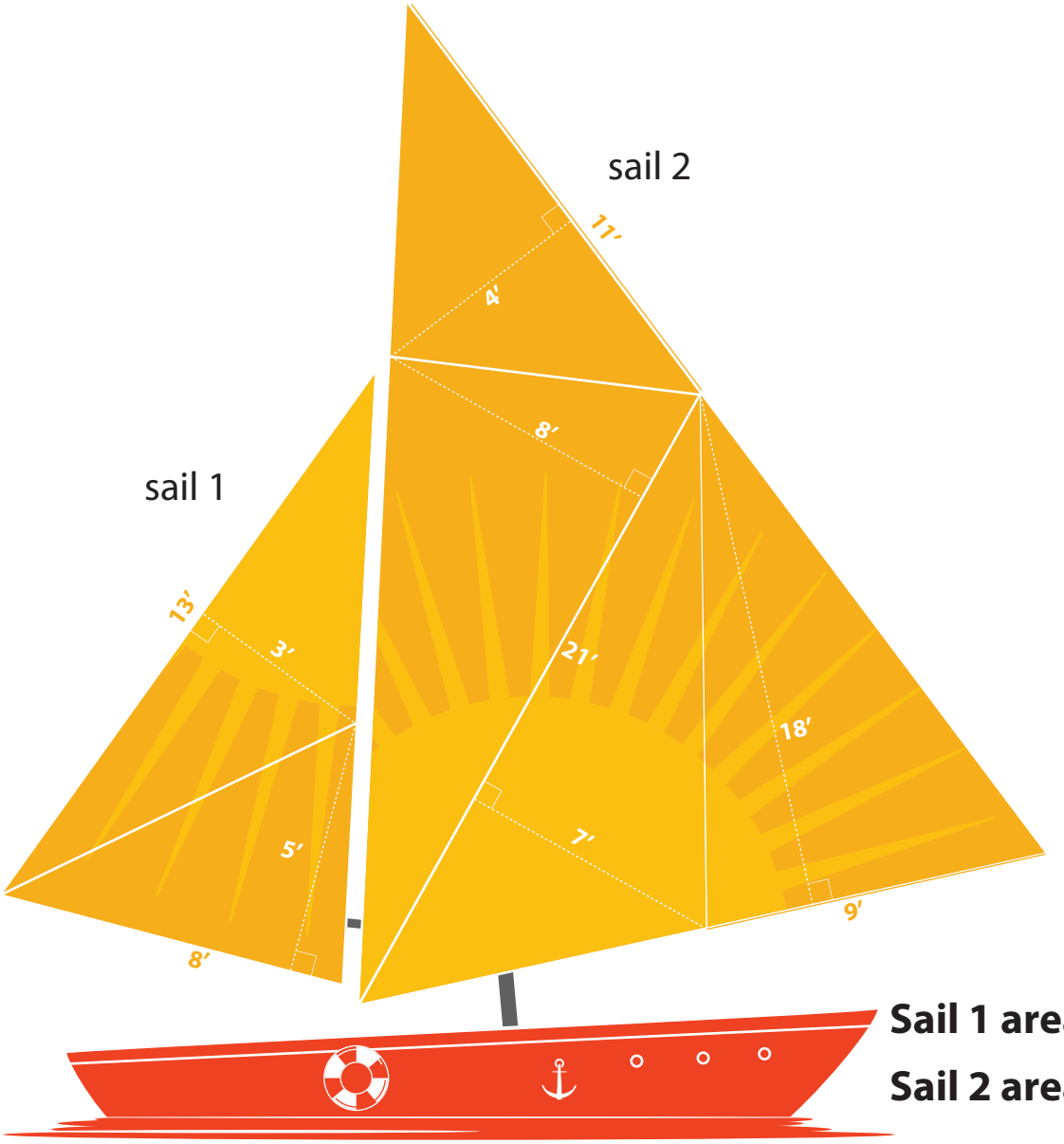


Sail 1 area: _____

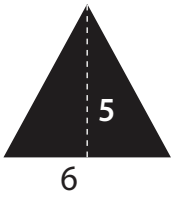
Sail 2 area: _____

Aye Aye, Area!

5

Calculate the area of the sails by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**



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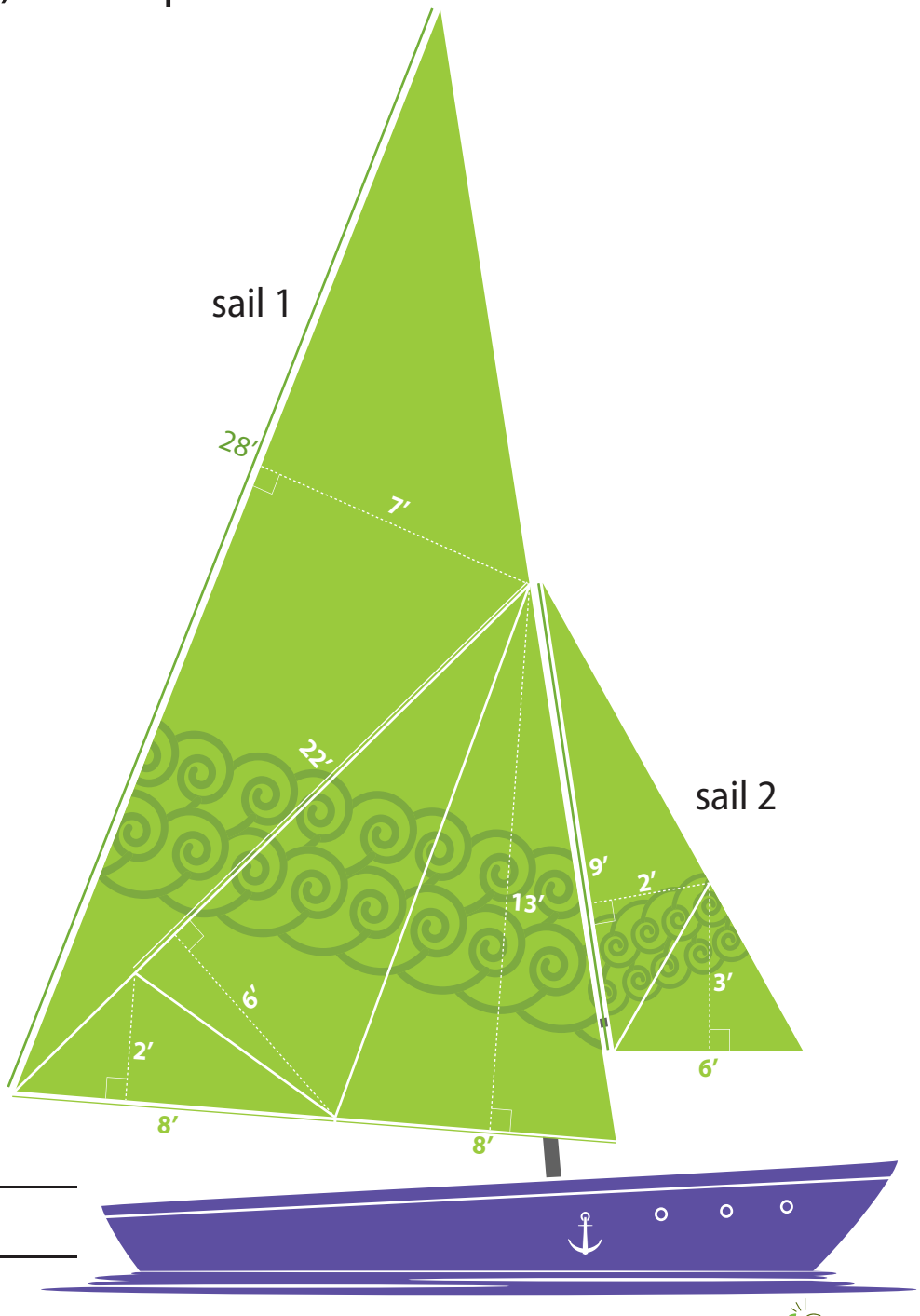


Sail 1 area: _____

Sail 2 area: _____

MATH

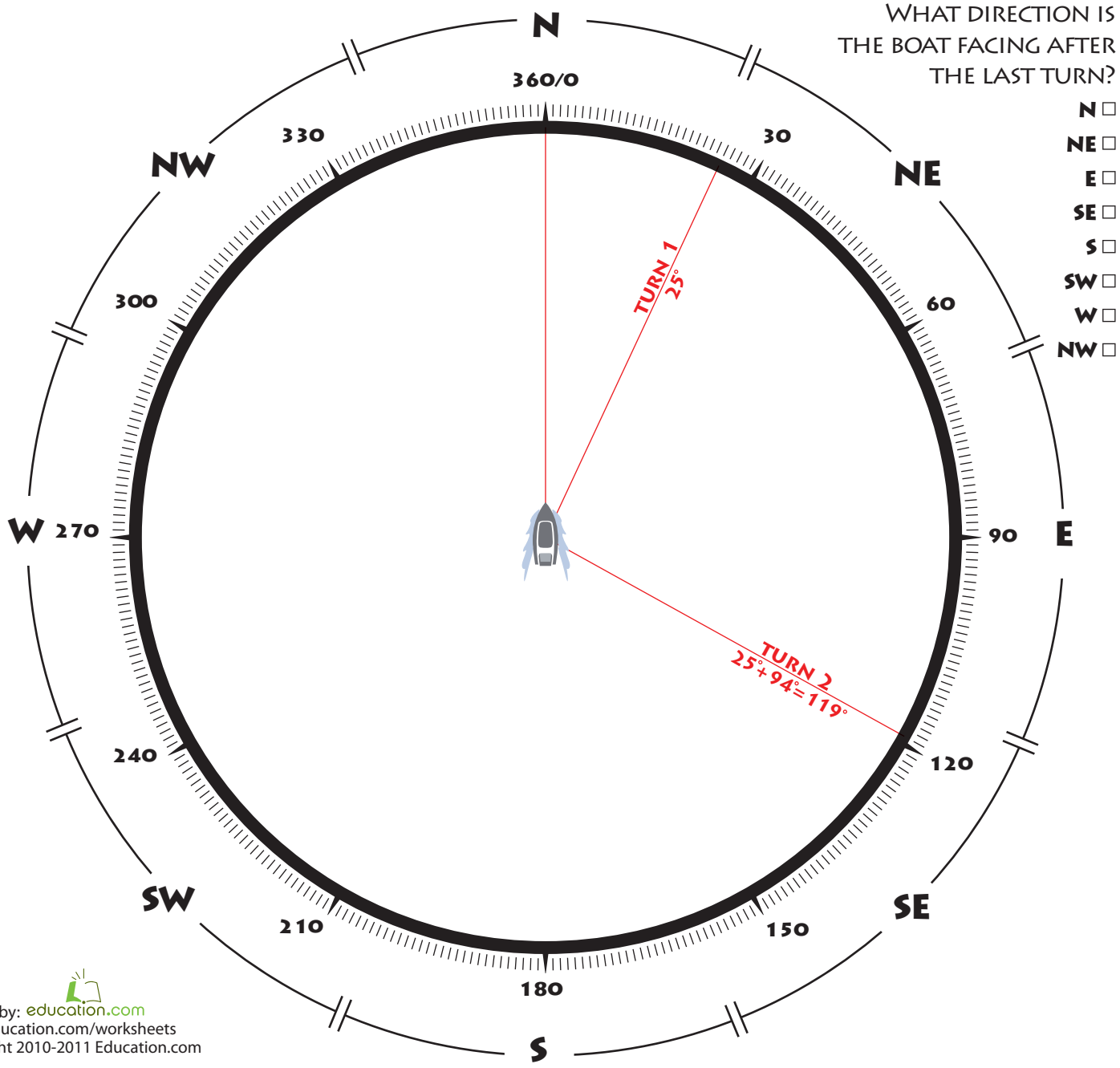
GEOMETRY

ANGLE STEERING 4

Steering a ship requires practice and precision. It also requires you to think about math and angles.

Turn the ship's wheel according to the angle measurements given. See the examples below. With each new turn, indicate the ship's new direction by drawing a line towards it. Turn clockwise if the angle is positive, counterclockwise if it is negative. Use a ruler to help you draw straight lines.

	1	2	3	4	5	6	7	8	9	10	11	12
Turn Degrees	+25°	+94°	-35°	-20°	+190°	-17°	+67°	+51°	-19°	-121°	-42°	+146°
New Direction	25°	119°										



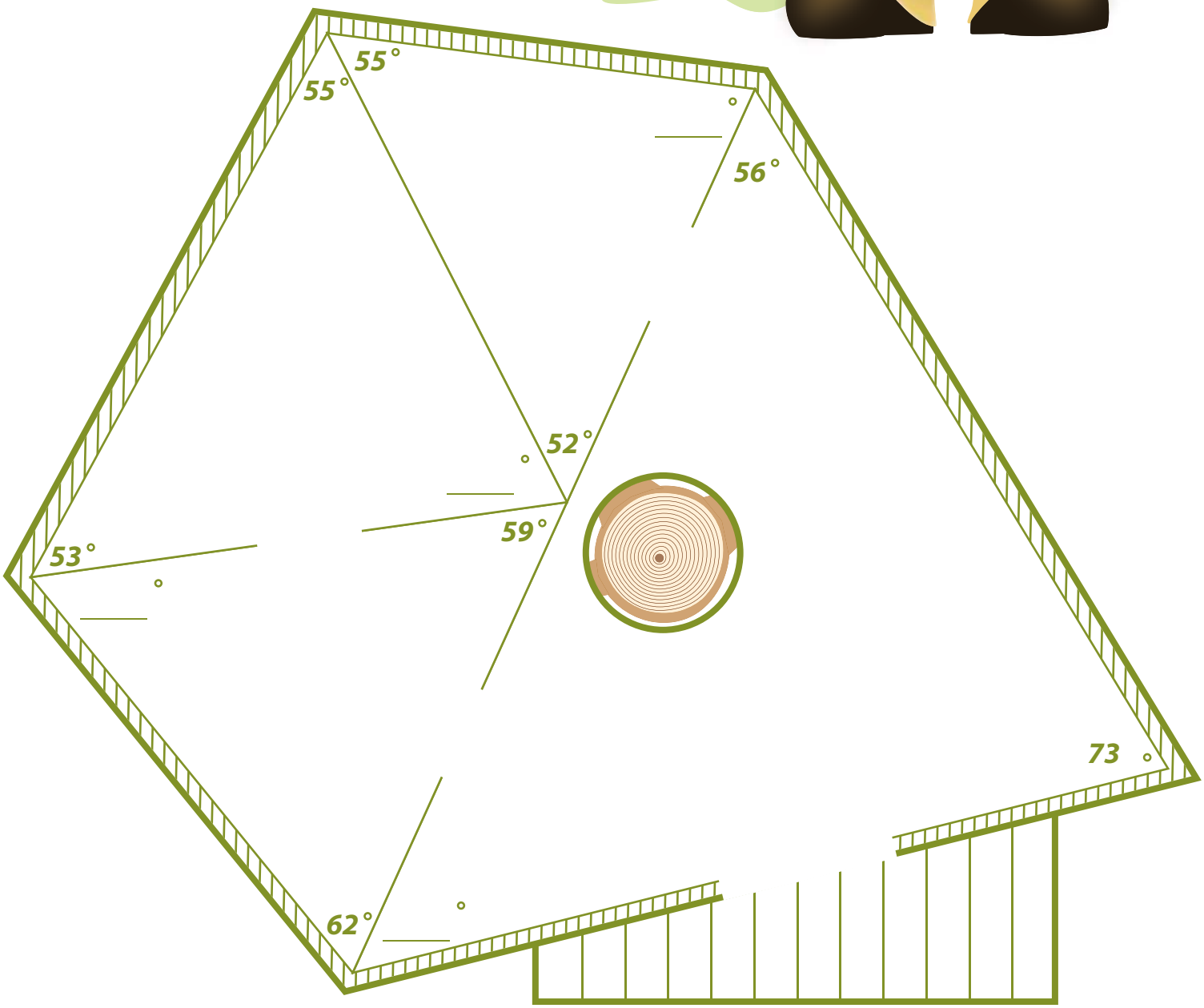
WHAT DIRECTION IS THE BOAT FACING AFTER THE LAST TURN?

- N ☐
- NE ☐
- E ☐
- SE ☐
- S ☐
- SW ☐
- W ☐
- NW ☐

Treehouse Triangles

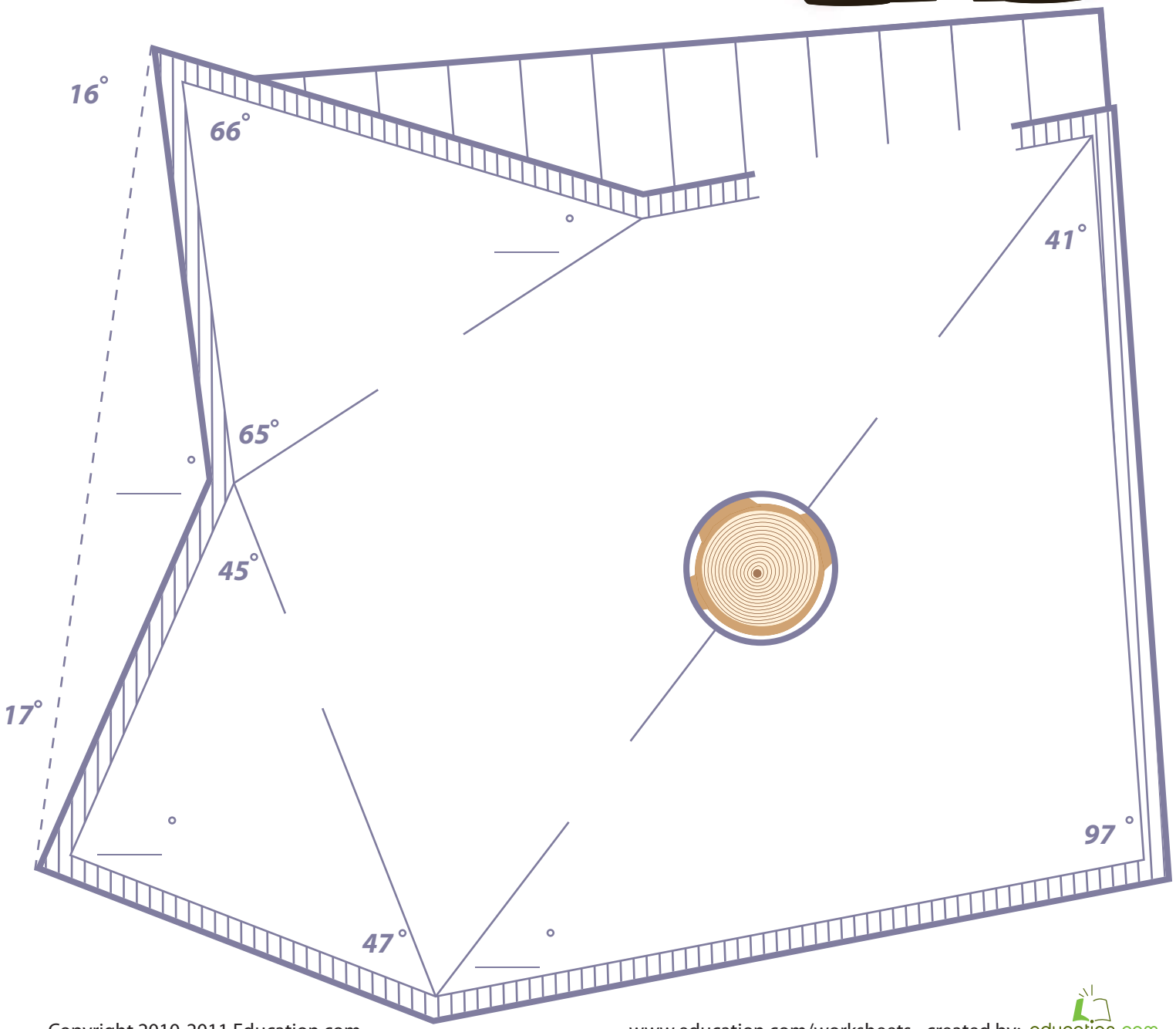
#1

Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!



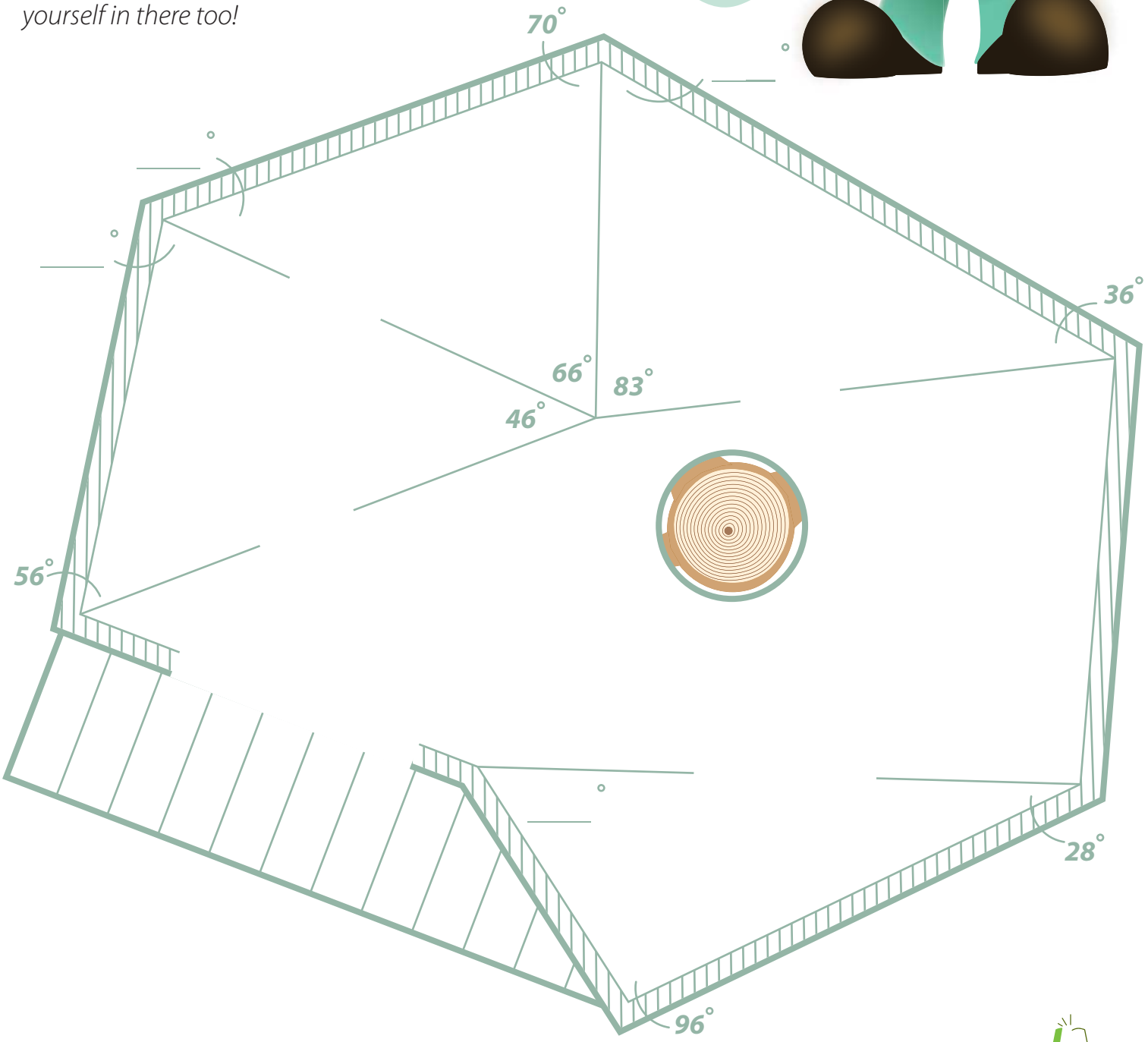
Treehouse Triangles #2

Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!



Treehouse Triangles #3

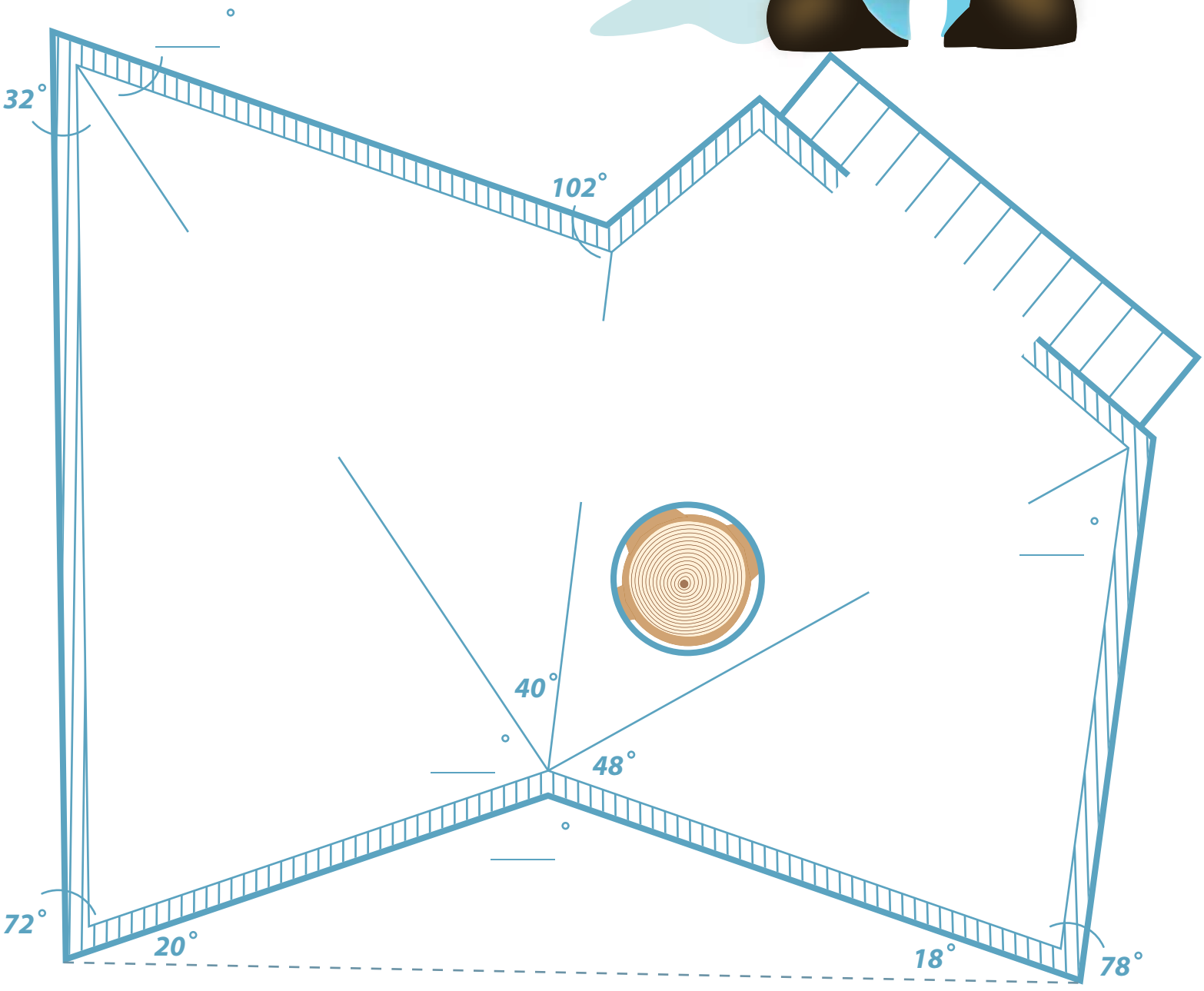
Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!



Treehouse Triangles

#4

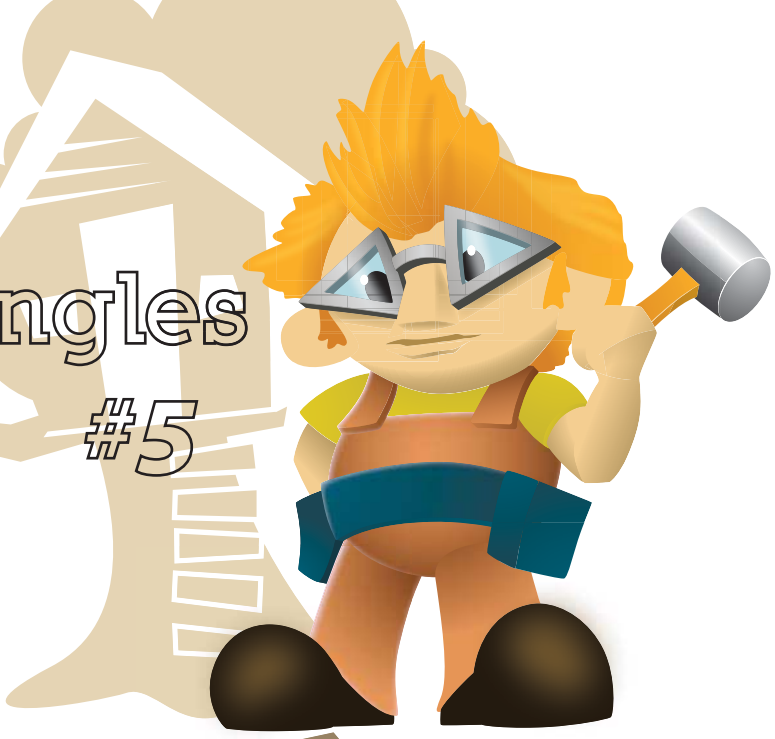
Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!

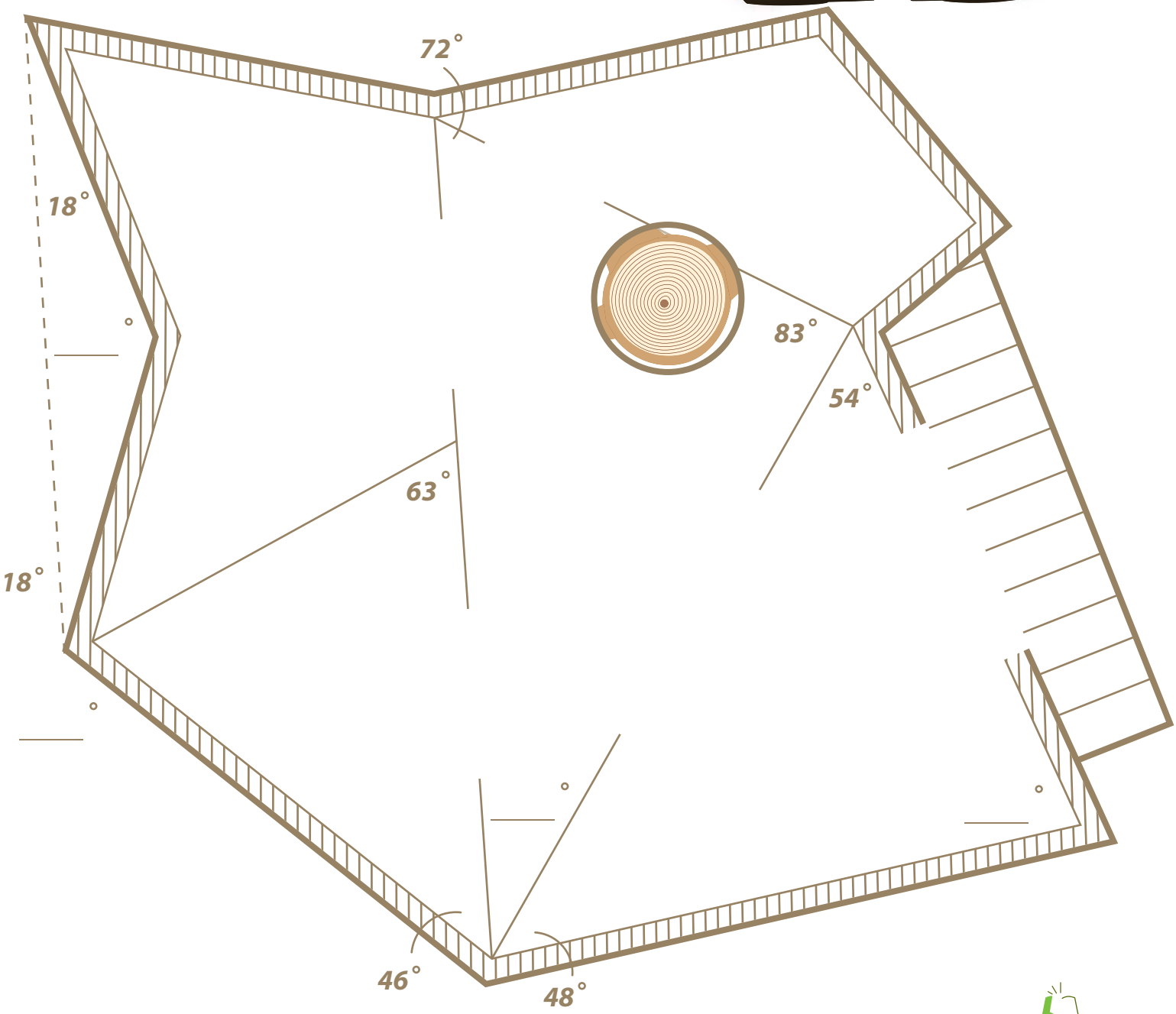


Treehouse Triangles

#5

Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!





5th Grade

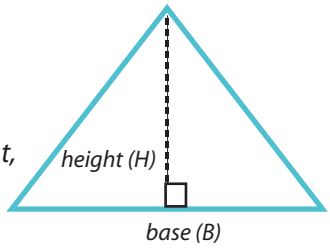
Acute Triangle: Find the Missing Base

Use the clues provided to find the base of each triangle. Show your work.

Review:

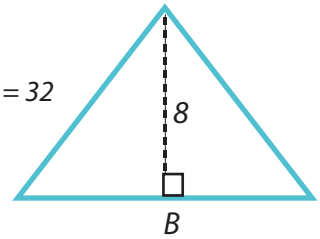
Triangle Area = $\frac{1}{2}$ x base x height

The base of a triangle can be any one of its sides.
The height is the distance from a base to its opposite point, or vertex.
A base must be perpendicular to its height.



Acute Triangle is a triangle that has three acute angles (angles that measure between 0 and 90 degrees).

Example:



Area = 32 sq.ft.

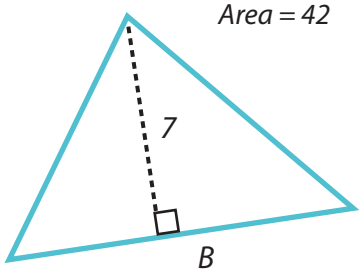
Height = 8 ft.

Area = $\frac{1}{2}$ x base x height

32 = $\frac{1}{2}$ x base x 8

Therefore, base = $\frac{32 \times 2}{8}$ = **8** ft.

1



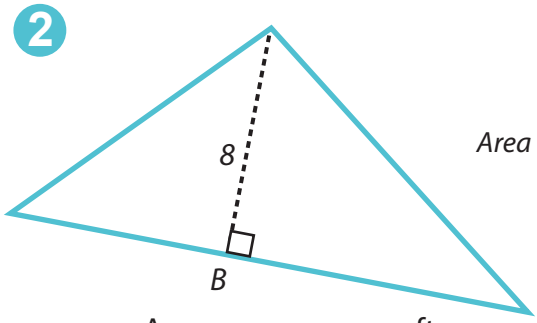
Area = _____ sq.ft.

Height = _____ ft.

Area = $\frac{1}{2}$ x base x height

Therefore, base = = _____ ft.

2



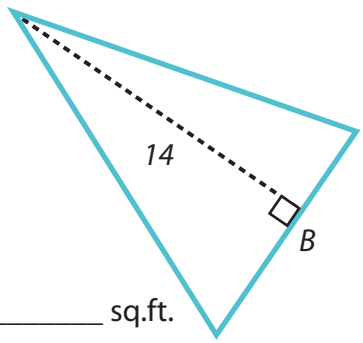
Area = _____ sq.ft.

Height = _____ ft.

Area = $\frac{1}{2}$ x base x height

Therefore, base = = _____ ft.

3



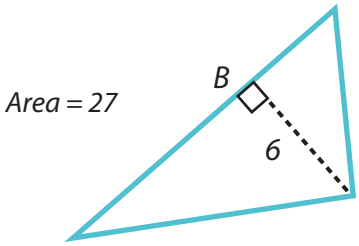
Area = _____ sq.ft.

Height = _____ ft.

Area = $\frac{1}{2}$ x base x height

Therefore, base = = _____ ft.

4



Area = _____ sq.ft.

Height = _____ ft.

Area = $\frac{1}{2}$ x base x height

Therefore, base = = _____ ft.

5th Grade

Obtuse Triangle: Find the Missing Base

Use the clues provided to find the base of each triangle. Show your work.

Review:

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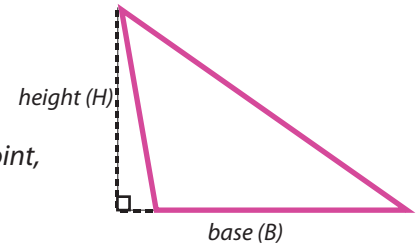
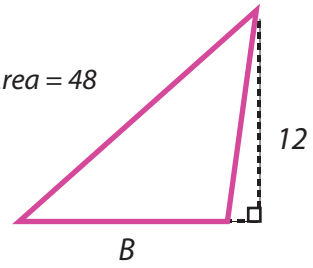
The height is the distance from a base to its opposite point, or vertex.
A base must be perpendicular to its height.



Obtuse Triangle is a triangle that has one obtuse angle (angle that measures between 90 and 180 degrees).

Example:



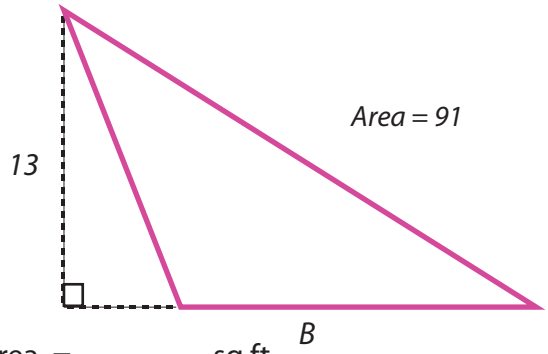
Area = 48 sq.ft.
Height = 12 ft.

Area = $\frac{1}{2}$ x base x height

48 = $\frac{1}{2}$ x base x 12

Therefore, base = $\frac{48 \times 2}{12}$ = **8** ft.

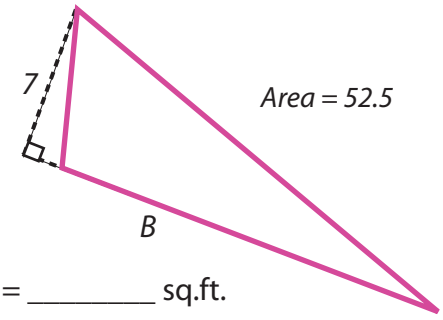
1



Area = _____ sq.ft.
Height = _____ ft.
Area = $\frac{1}{2}$ x base x height

Therefore, base = = _____ ft.

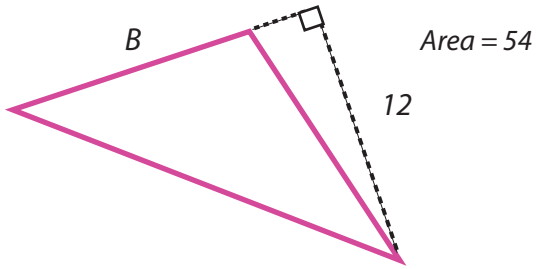
2



Area = _____ sq.ft.
Height = _____ ft.
Area = $\frac{1}{2}$ x base x height

Therefore, base = = _____ ft.

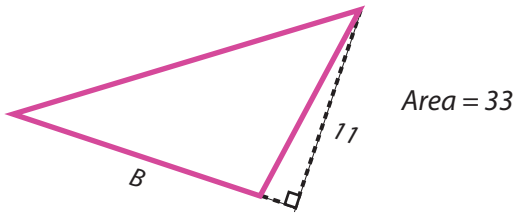
3



Area = _____ sq.ft.
Height = _____ ft.
Area = $\frac{1}{2}$ x base x height

Therefore, base = = _____ ft.

4



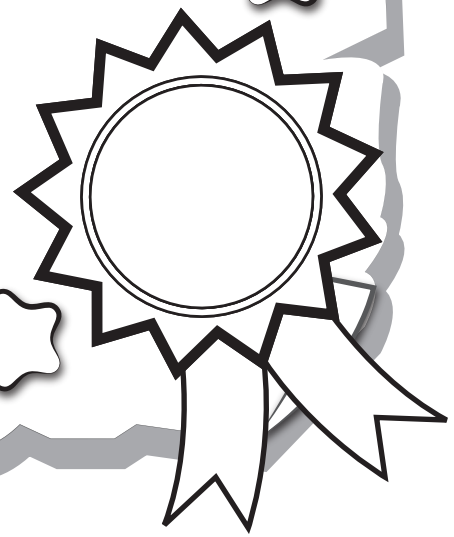
Area = _____ sq.ft.
Height = _____ ft.
Area = $\frac{1}{2}$ x base x height

Therefore, base = = _____ ft.

Great job!

_____

is an Education.com math superstar



Answer Sheets

What's Your Angle?

Answer Sheet

ANSWER SHEET

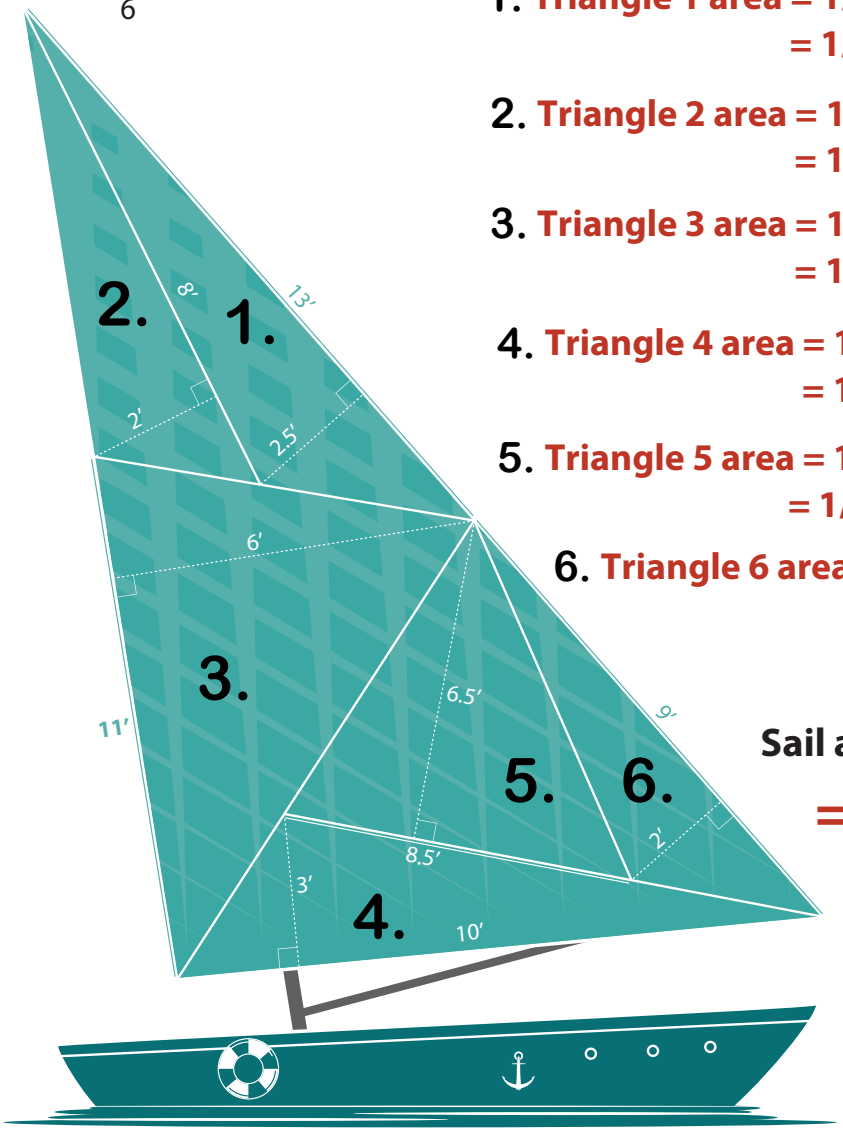
MATH
GEOMETRY

Aye Aye, Area!

Calculate the area of the sail by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**

Area = ½ (6x5) = 15 square feet



1. **Triangle 1 area = 1/2 (base x height)**
   = 1/2 (13 x 2.5) =1/2 x 32.5 = 16.25

2. **Triangle 2 area = 1/2 (base x height)**
   = 1/2 (8 x 2) =1/2 x 16 = 8

3. **Triangle 3 area = 1/2 (base x height)**
   = 1/2 (11 x 6) =1/2 x 66 = 33

4. **Triangle 4 area = 1/2 (base x height)**
   = 1/2 (10 x 3) =1/2 x 30 = 15

5. **Triangle 5 area = 1/2 (base x height)**
   = 1/2 (8.5 x 6.5) =1/2 x 55.25= 27.63

6. **Triangle 6 area = 1/2 (base x height)**
   = 1/2 (9 x 2) =1/2 x 18 = 9

Sail area: = 16.25+8+33+15+27.63+9

= 108.88 square feet

Answer Sheet

ANSWER SHEET

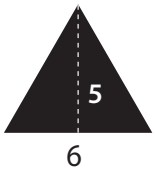
MATH
GEOMETRY

Aye Aye, Area!

2

Calculate the area of the sail by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**



Area = ½ (6x5) = 15 square feet

1. **Triangle 1 area = 1/2 (base x height)**
   = 1/2 (9 x 5) =1/2 x 45 = 22.5

2. **Triangle 2 area = 1/2 (base x height)**
   = 1/2 (16 x 3) =1/2 x 48= 24

3. **Triangle 3 area = 1/2 (base x height)**
   = 1/2 (11 x 19) =1/2 x 209= 104.5

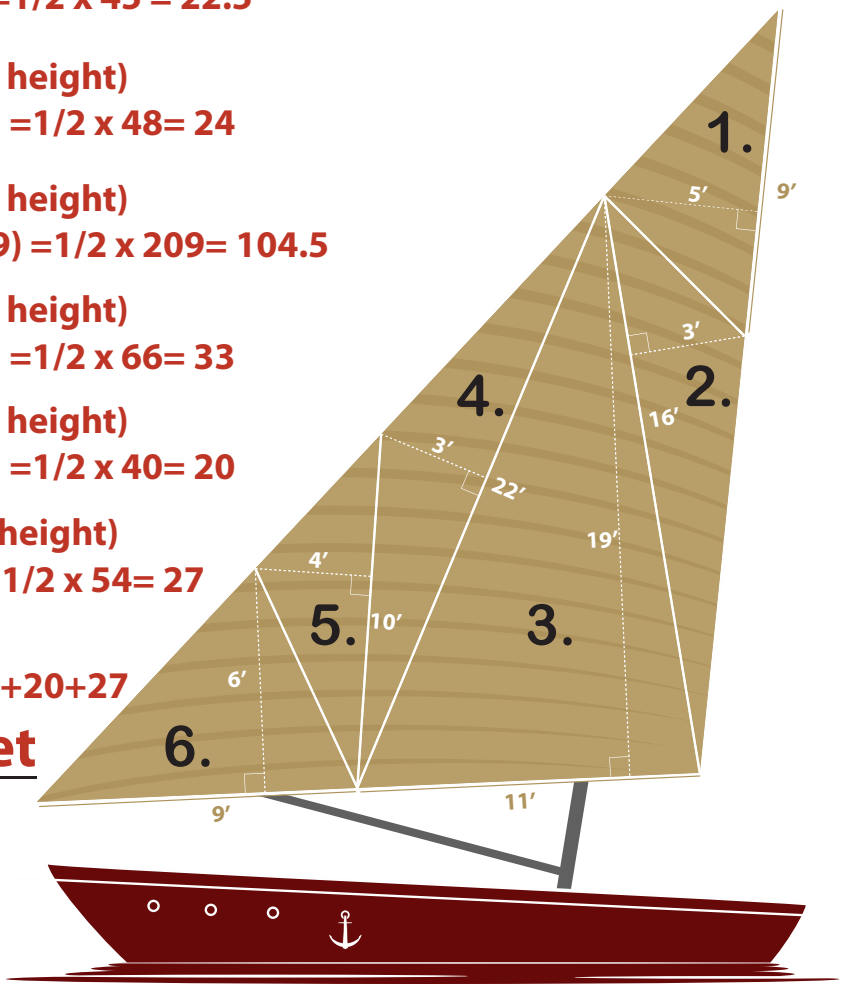
4. **Triangle 4 area = 1/2 (base x height)**
   = 1/2 (22 x 3) =1/2 x 66= 33

5. **Triangle 5 area = 1/2 (base x height)**
   = 1/2 (10 x 4) =1/2 x 40= 20

6. **Triangle 6 area = 1/2 (base x height)**
   = 1/2 (9 x 6) =1/2 x 54= 27

Sail area: = 22.5 + 24+104.5+33+20+27

= 231 square feet



Answer Sheet

MATH
GEOMETRY

Aye Aye, Area!

3

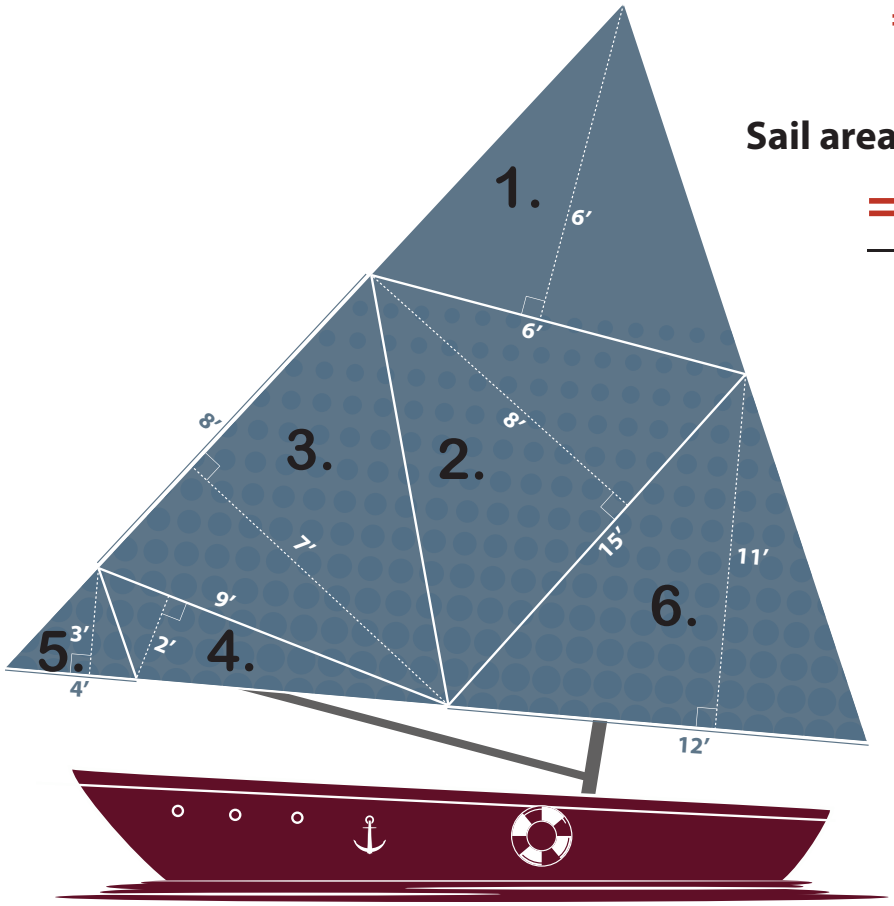
ANSWER SHEET

Calculate the area of the sail by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**

Area = ½ (6x5) = 15 square feet

1. **Triangle 1 area = 1/2 (base x height)**
   = 1/2 (6 x 6) =1/2 x 36 = 18
2. **Triangle 2 area = 1/2 (base x height)**
   = 1/2 (15 x 8) =1/2 x 120 = 60
3. **Triangle 3 area = 1/2 (base x height)**
   = 1/2 (8 x 7) =1/2 x 56 = 28
4. **Triangle 4 area = 1/2 (base x height)**
   = 1/2 (9 x 2) =1/2 x 18 = 9
5. **Triangle 5 area = 1/2 (base x height)**
   = 1/2 (4x 3) =1/2 x 12 = 6
6. **Triangle 6 area = 1/2 (base x height)**
   = 1/2 (12 x 11) =1/2 x 132 = 66



Sail area: = 18+60+28+9+6+66

= 187 square feet

Answer Sheet

ANSWER SHEET

MATH
GEOMETRY

Aye Aye, Area!

4

Calculate the area of the sails by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**

Area = ½ (6x5) = 15 square feet

1. Triangle 1 area = 1/2 (11 x 4) = 1/2 x 44 = 22

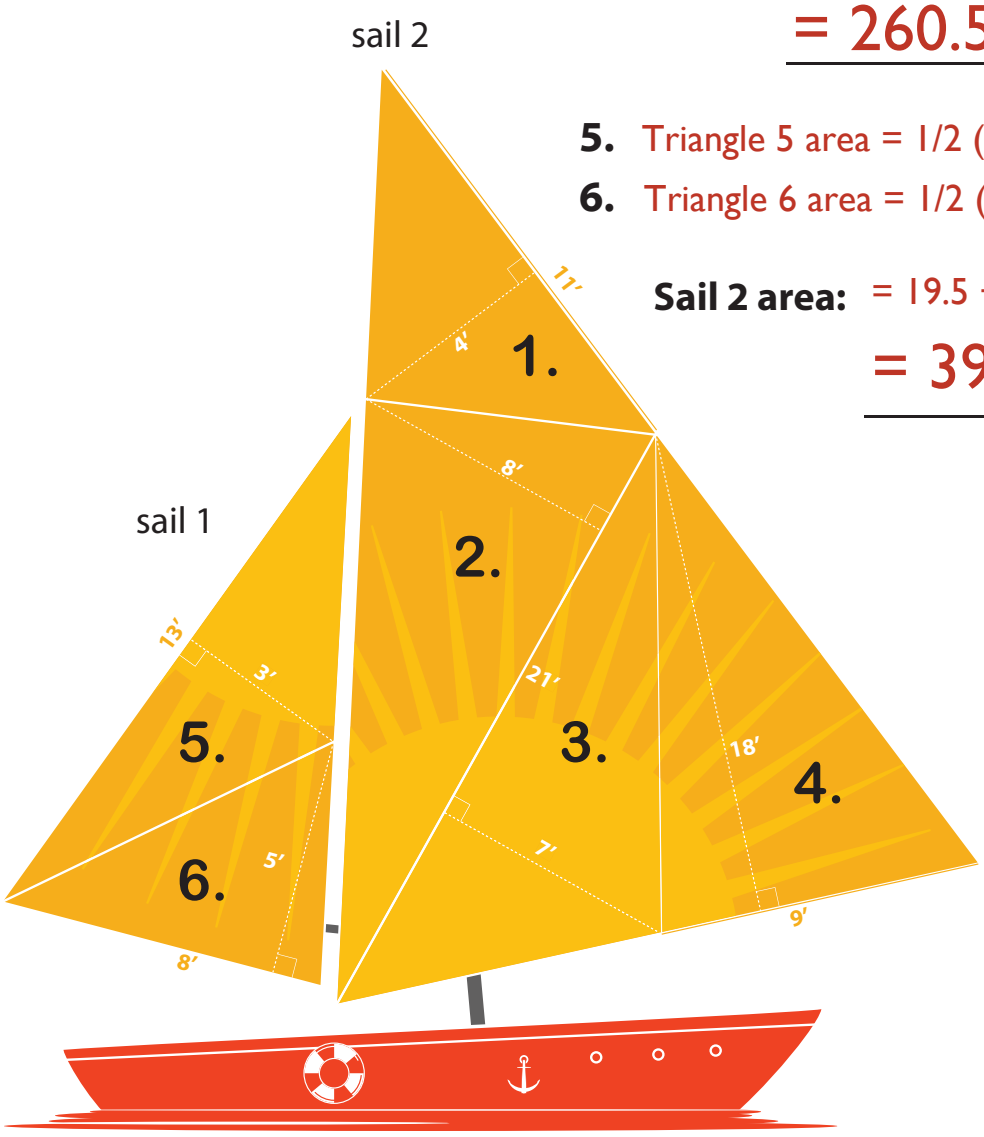
2. Triangle 2 area = 1/2 (21 x 8) = 1/2 x 168 = 84

3. Triangle 3 area = 1/2 (21 x 7) = 1/2 x 147 = 73.5

4. Triangle 4 area = 1/2 (9 x 18) = 1/2 x 162 = 81

Sail 1 area: = 22 + 84 + 73.5 + 81

= 260.5 square feet



5. Triangle 5 area = 1/2 (13 x 3) = 1/2 x 39 = 19.5

6. Triangle 6 area = 1/2 (8 x 5) = 1/2 x 40 = 20

Sail 2 area: = 19.5 + 20

= 39.5 square feet

Answer Sheet

MATH
GEOMETRY

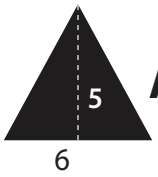
ANSWER SHEET

Aye Aye, Area!

5

Calculate the area of the sails by finding the areas of the smaller triangles.

Remember, **triangle area = 1/2 (base x height)**



Area = ½ (6x5) = 15 square feet

1. Triangle 1 area = 1/2(28x7) = 1/2 x 196 = 98'
2. Triangle 2 area = 1/2(22x6) = 1/2 x 132 = 66'
3. Triangle 3 area = 1/2(8x2) = 1/2 x 16 = 8'
4. Triangle 4 area = 1/2(8x13) = 1/2 x 104 = 52'

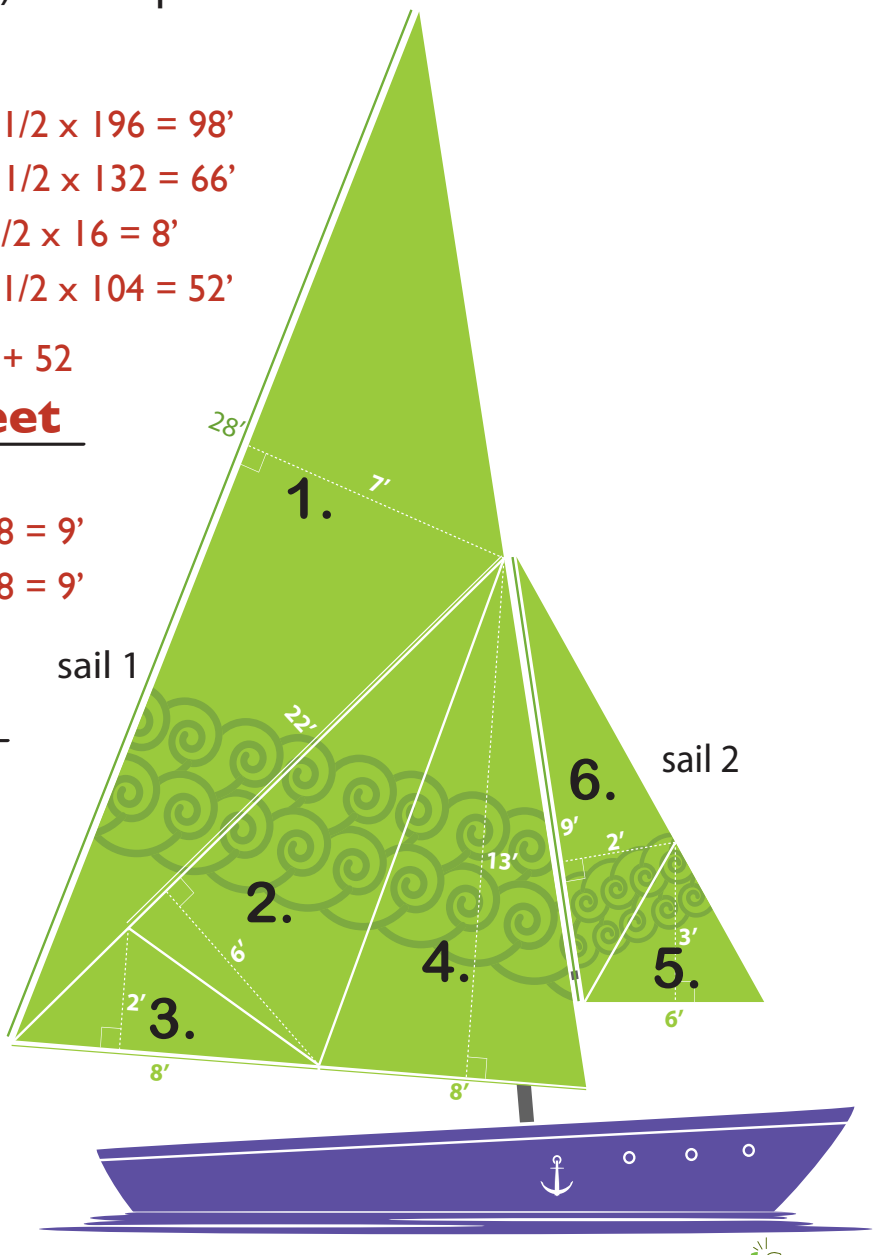
Sail 1 area: = 98 + 66 + 8 + 52

= **224 square feet**

5. Triangle 5 = 1/2(6x3) = 1/2 x 18 = 9'
6. Triangle 1 = 1/2(9x2) = 1/2 x 18 = 9'

Sail 2 area: = 9 + 9

= **18 square feet**



Answer Sheet

Answer Sheet

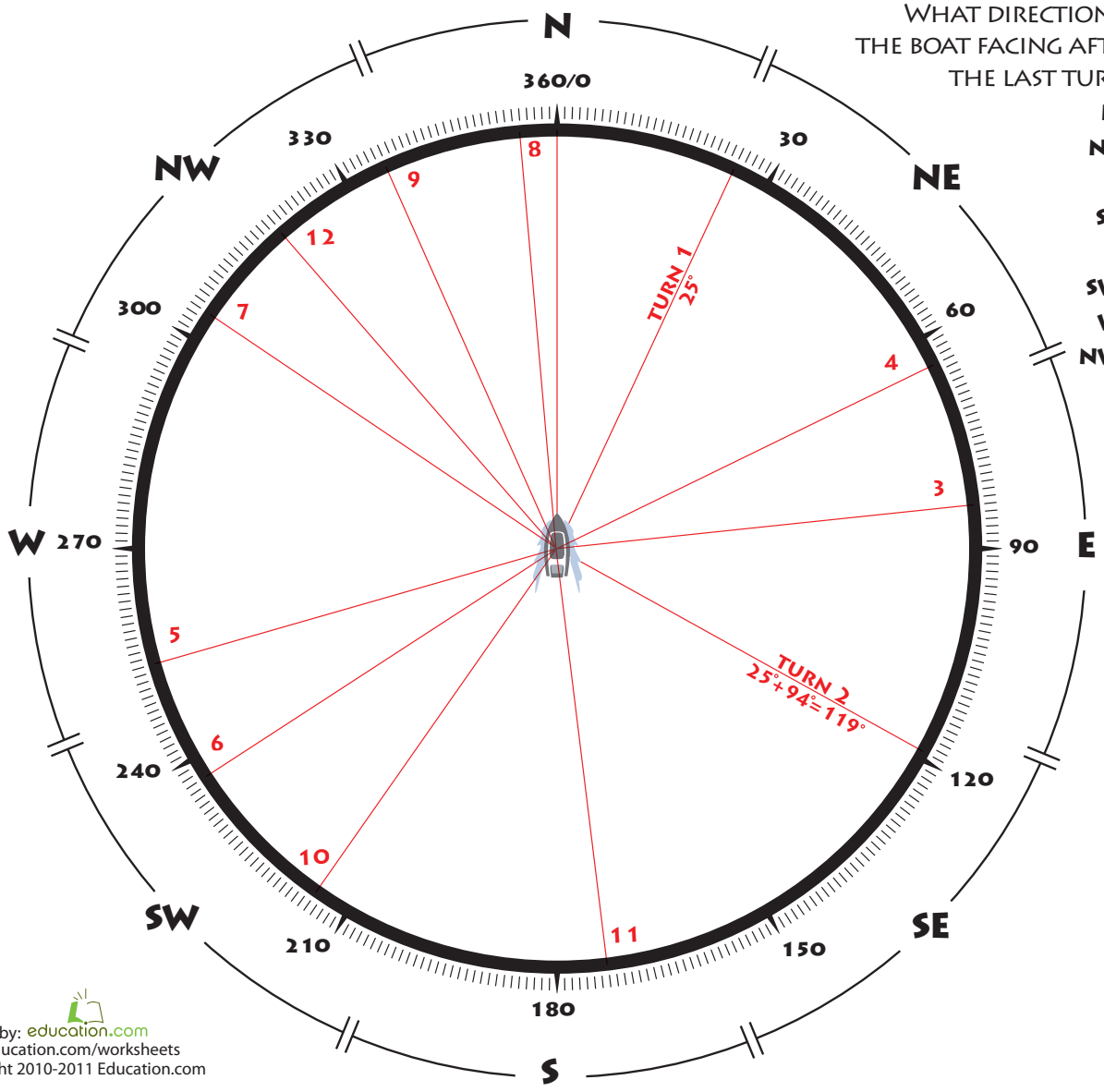
MATH
GEOMETRY

ANGLE STEERING 4

Steering a ship requires practice and precision. It also requires you to think about math and angles.

Turn the ship's wheel according to the angle measurements given. See the examples below. With each new turn, indicate the ship's new direction by drawing a line towards it. Turn clockwise if the angle is positive, counterclockwise if it is negative. Use a ruler to help you draw straight lines.

	1	2	3	4	5	6	7	8	9	10	11	12
Turn Degrees	+25°	+94°	-35°	-20°	+190°	-17°	+67°	+51°	-19°	-121°	-42°	+146°
New Direction	25°	119°	84°	64°	254°	237°	304°	355°	336°	215°	173°	319°



WHAT DIRECTION IS THE BOAT FACING AFTER THE LAST TURN?

- N ☐
- NE ☐
- E ☐
- SE ☐
- S ☐
- SW ☐
- W ☐
- NW ☒

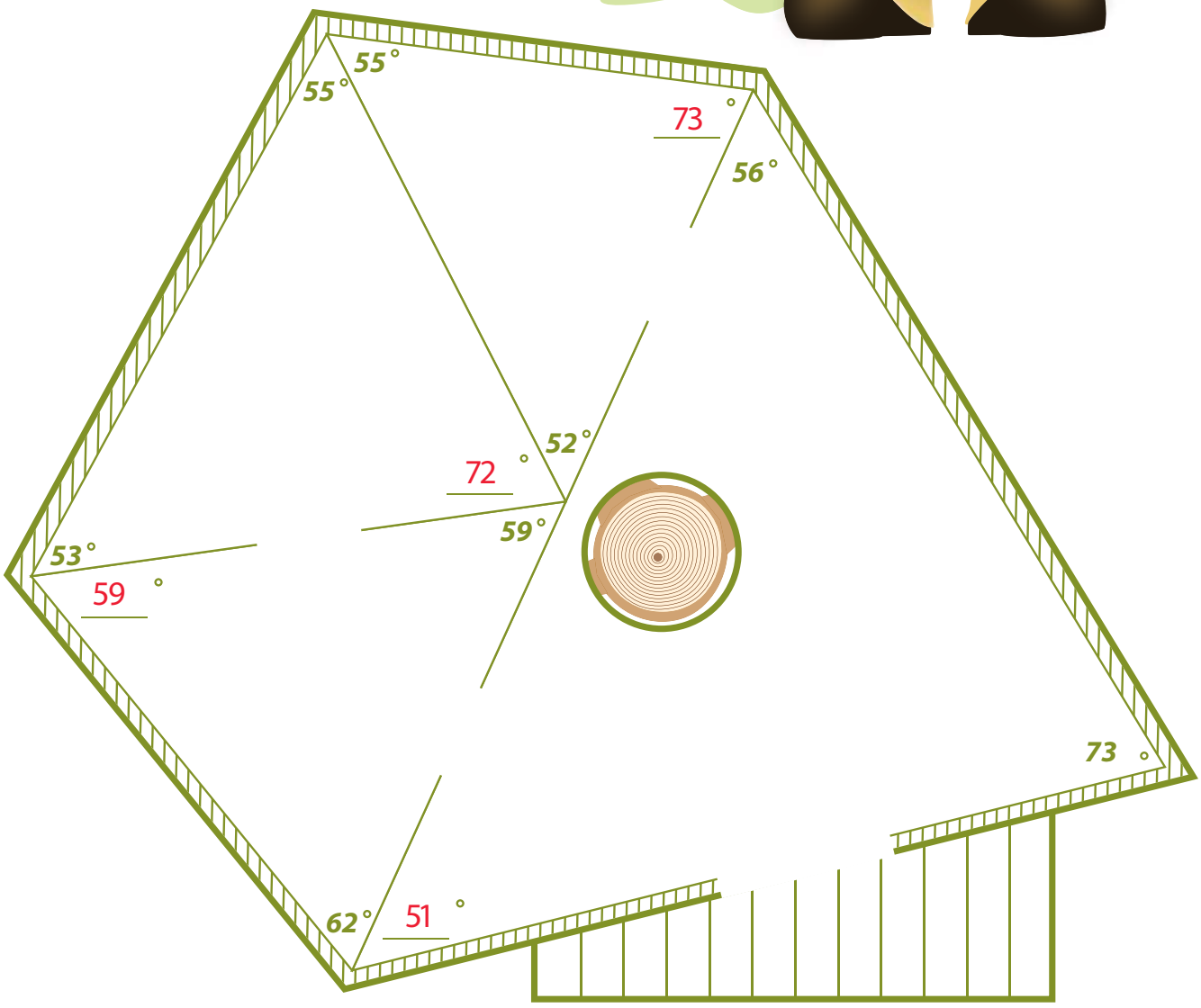
Answer Sheet

MATH
GEOMETRY

ANSWERS

Treehouse Triangles #1

Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!



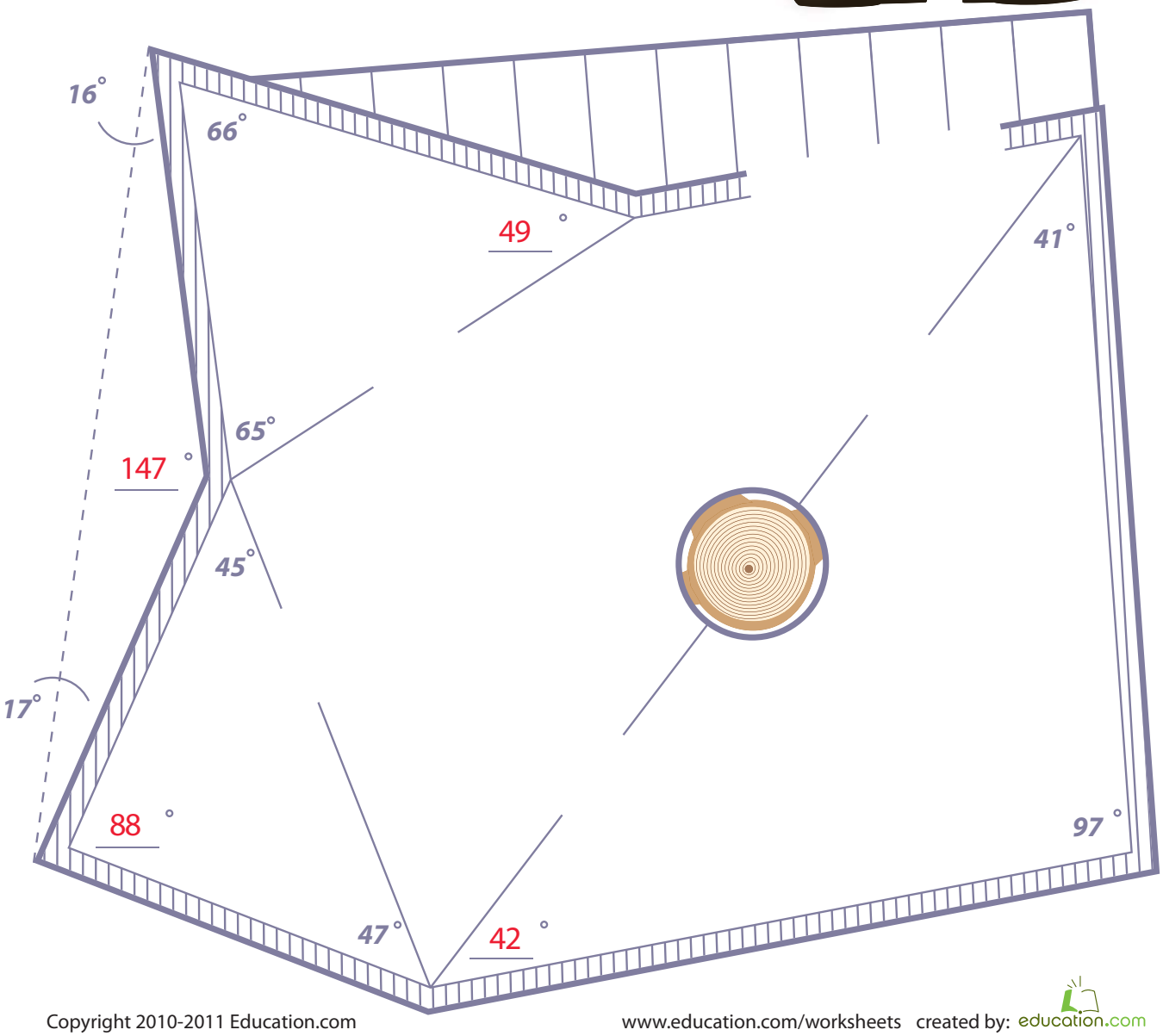
Answer Sheet

MATH
GEOMETRY

ANSWERS

Treehouse Triangles #2

Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!



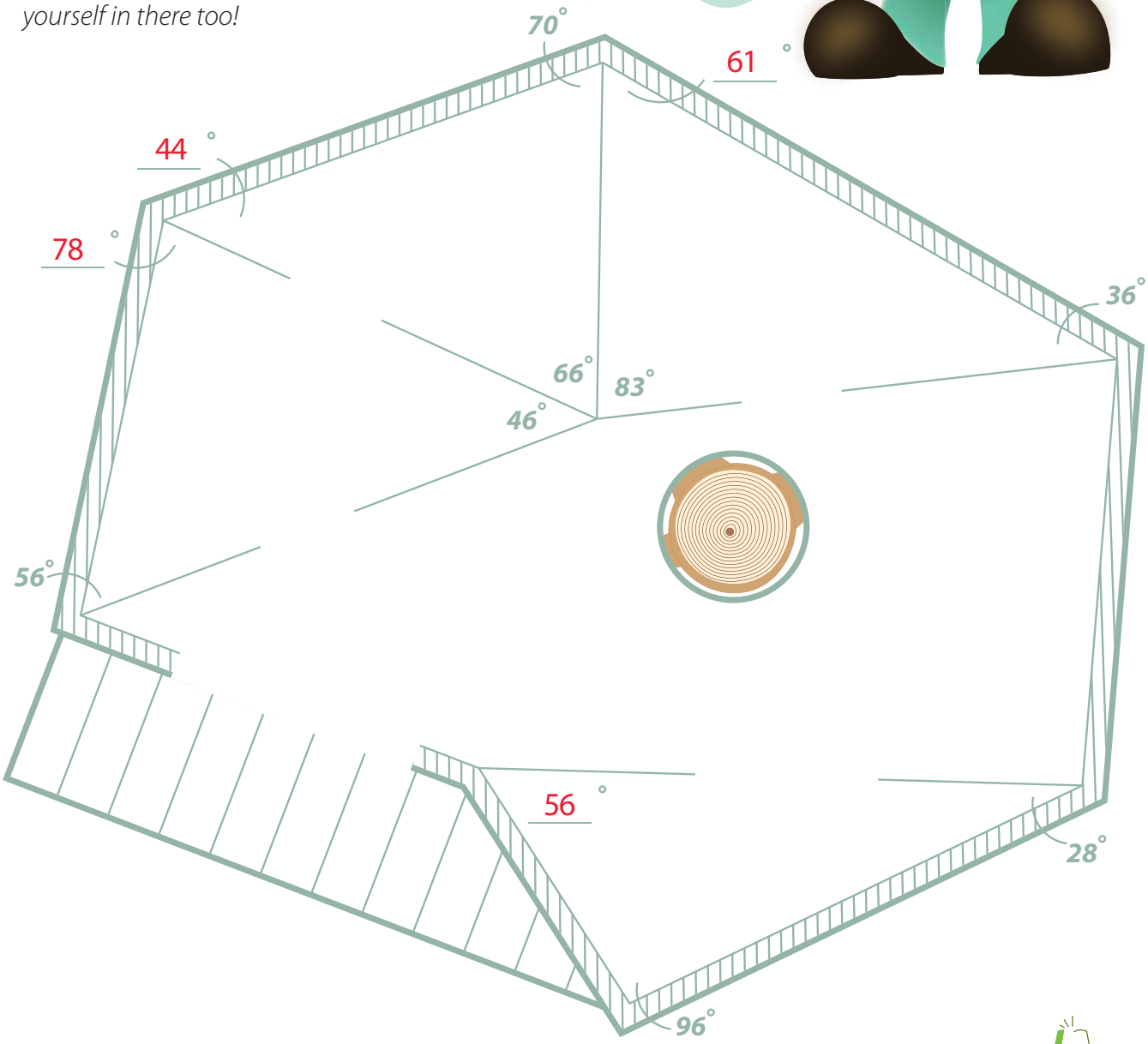
Answer Sheet

MATH
GEOMETRY

ANSWERS

Treehouse Triangles #3

Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!



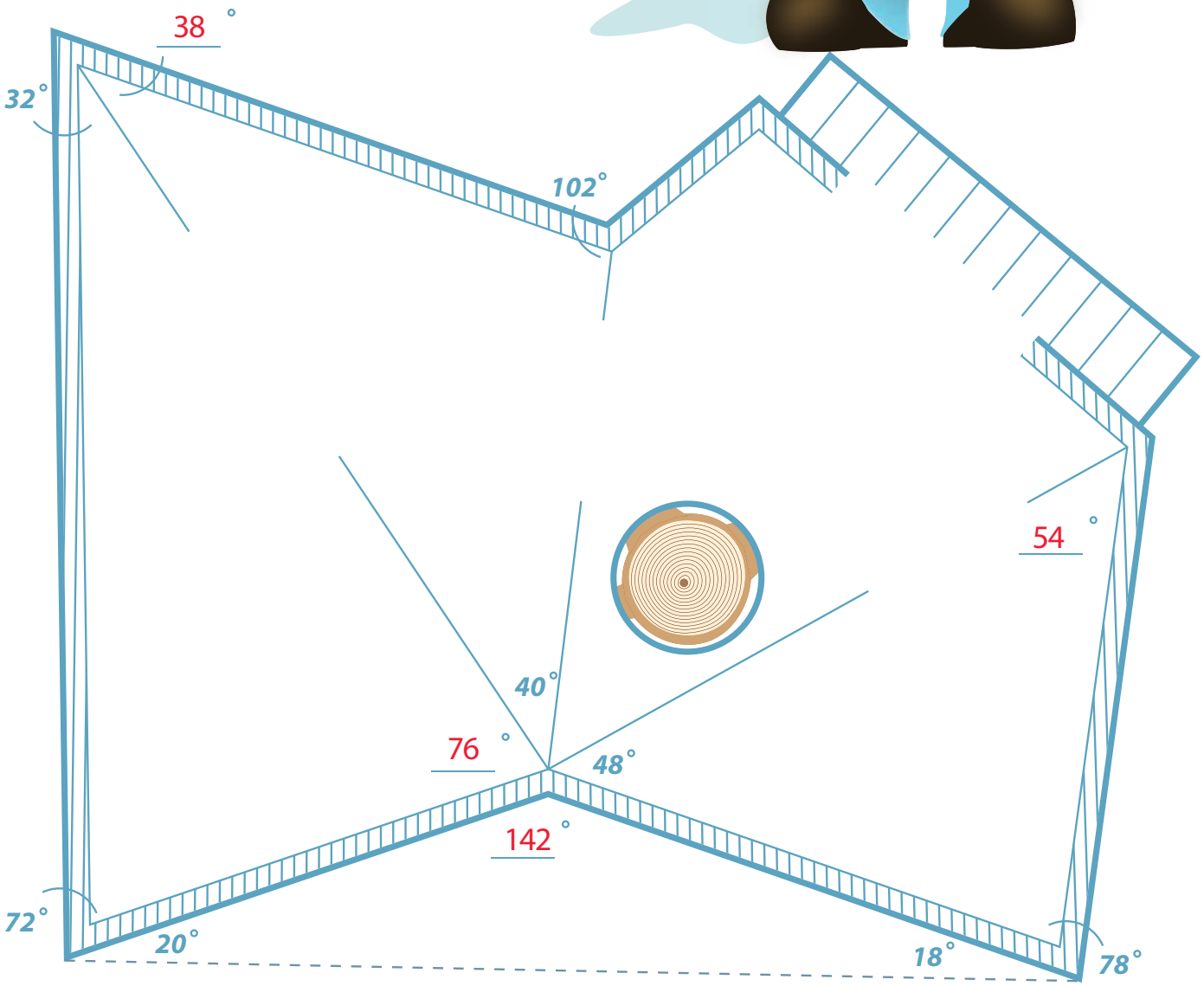
Answer Sheet

MATH
GEOMETRY

ANSWERS

Treehouse Triangles #4

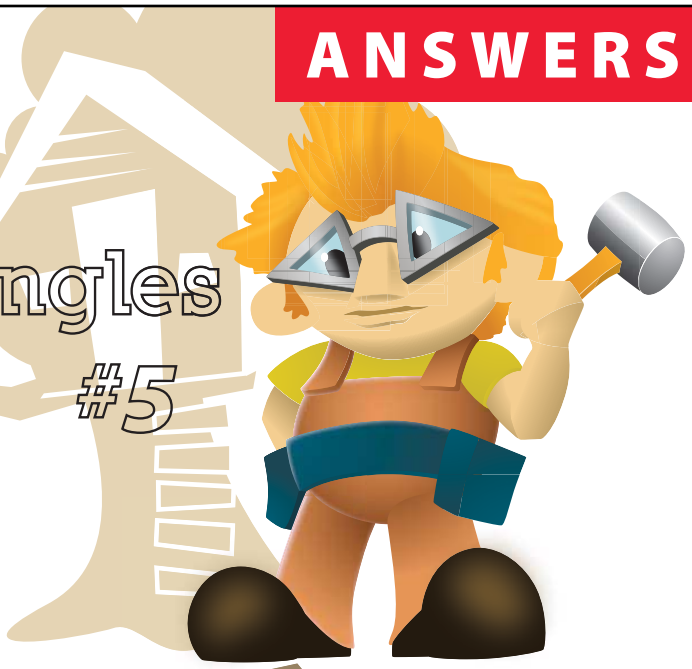
Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!



Answer Sheet

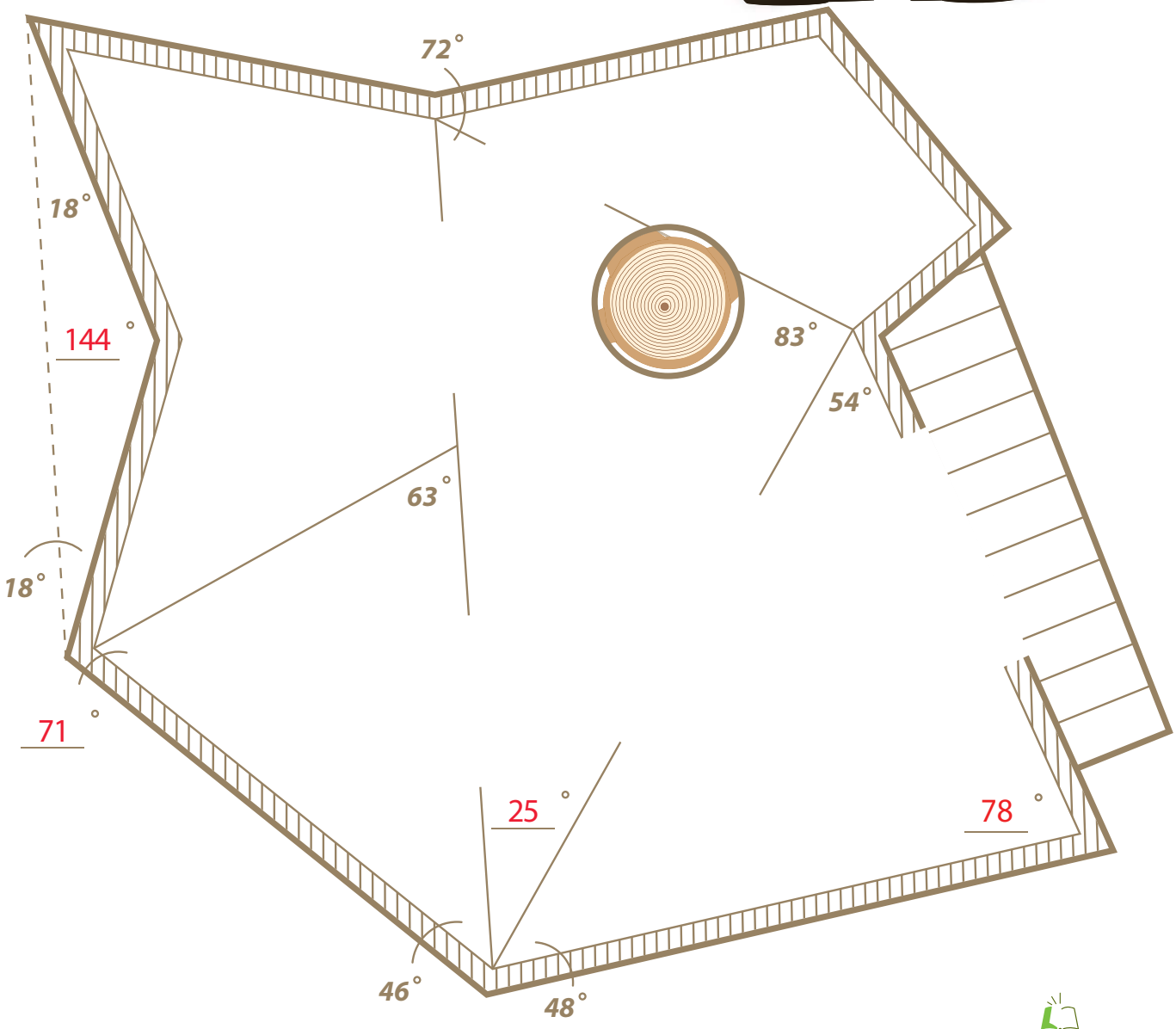
MATH
GEOMETRY

ANSWERS



Treehouse Triangles #5

Help Buster the Builder find the missing angles of the rooms in the treehouse he is building. Remember, all interior angles in a triangle add up to 180 degrees. When you're done, grab some coloring tools to make your new treehouse plans unique. Add decorations, furniture, appliances, and most importantly, draw yourself in there too!



Answer Sheet

5th Grade

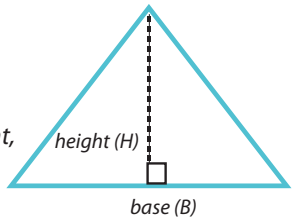
Acute Triangle: Find the missing base

Use the clues provided to find the base of each triangle. Show your work.

Review:

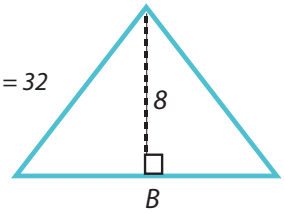
Triangle Area = $\frac{1}{2}$ x base x height

The base of a triangle can be any one of its sides.
The height is the distance from a base to its opposite point, or vertex.
A base must be perpendicular to its height.



Acute Triangle is a triangle that has three acute angles (angles that measure between 0 and 90 degrees).

Example:



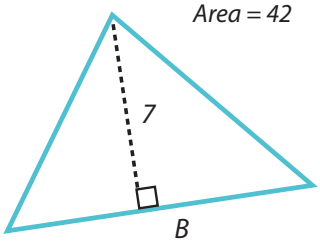
Area = 32 sq.ft.
Height = 8 ft.

Area = $\frac{1}{2}$ x base x height

32 = $\frac{1}{2}$ x base x 8

Therefore, base = $\frac{32 \times 2}{8}$ = 8 ft.

1

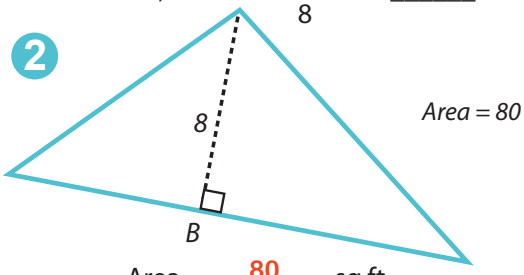


Area = 42 sq.ft.
Height = 7 ft.
Area = $\frac{1}{2}$ x base x height

42 = $\frac{1 \times B \times 7}{2}$

Therefore, base = $\frac{42 \times 2}{7}$ = 12 ft.

2

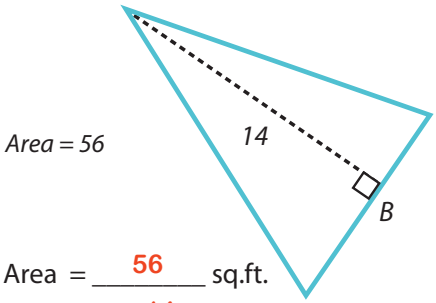


Area = 80 sq.ft.
Height = 8 ft.
Area = $\frac{1}{2}$ x base x height

80 = $\frac{1 \times B \times 8}{2}$

Therefore, base = $\frac{80 \times 2}{8}$ = 20 ft.

3

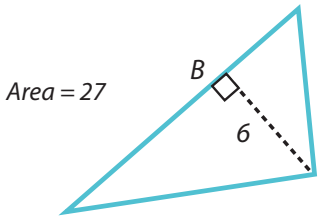


Area = 56 sq.ft.
Height = 14 ft.
Area = $\frac{1}{2}$ x base x height

56 = $\frac{1 \times B \times 14}{2}$

Therefore, base = $\frac{56 \times 2}{14}$ = 8 ft.

4



Area = 27 sq.ft.
Height = 6 ft.
Area = $\frac{1}{2}$ x base x height

27 = $\frac{1 \times B \times 6}{2}$

Therefore, base = $\frac{27 \times 2}{6}$ = 9 ft.

Answer Sheet

ANSWER SHEET

5th Grade

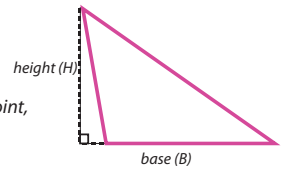
Obtuse Triangle: Find the missing base

Use the clues provided to find the base of each triangle. Show your work.

Review:

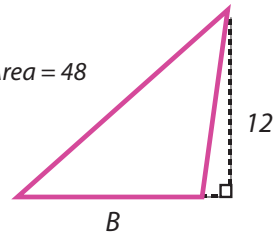
Triangle Area = $\frac{1}{2}$ x base x height

The base of a triangle can be any one of its sides.
The height is the distance from a base to its opposite point, or vertex.
A base must be perpendicular to its height.



Obtuse Triangle is a triangle that has one obtuse angle (angle that measures between 90 and 180 degrees).

Example:



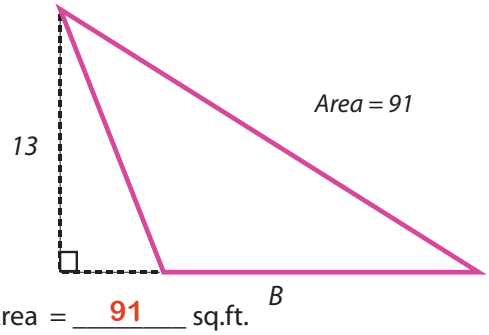
Area = 48 sq.ft.
Height = 12 ft.

Area = $\frac{1}{2}$ x base x height

48 = $\frac{1}{2}$ x base x 12

Therefore, base = $\frac{48 \times 2}{12}$ = 8 ft.

1

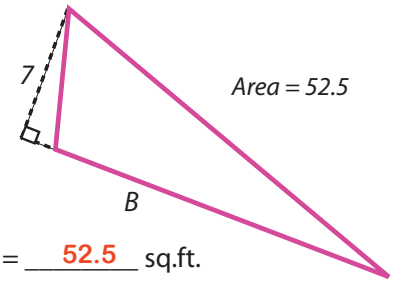


Area = 91 sq.ft.
Height = 13 ft.
Area = $\frac{1}{2}$ x base x height

91 = $\frac{1 \times B \times 13}{2}$

Therefore, base = $\frac{91 \times 2}{13}$ = 14 ft.

2

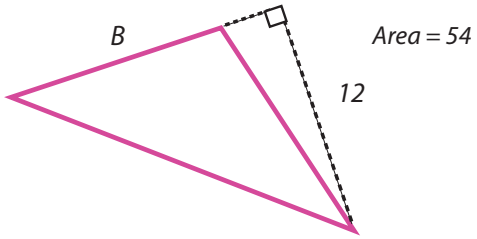


Area = 52.5 sq.ft.
Height = 7 ft.
Area = $\frac{1}{2}$ x base x height

52.5 = $\frac{1 \times B \times 7}{2}$

Therefore, base = $\frac{52.5 \times 2}{7}$ = 15 ft.

3

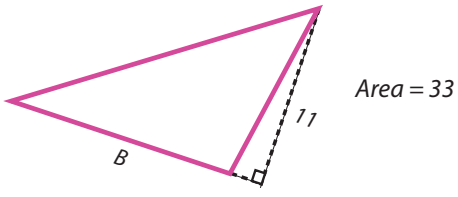


Area = 54 sq.ft.
Height = 12 ft.
Area = $\frac{1}{2}$ x base x height

54 = $\frac{1 \times B \times 12}{2}$

Therefore, base = $\frac{54 \times 2}{12}$ = 9 ft.

4



Area = 33 sq.ft.
Height = 11 ft.
Area = $\frac{1}{2}$ x base x height

33 = $\frac{1 \times B \times 11}{2}$

Therefore, base = $\frac{33 \times 2}{11}$ = 6 ft.