Centum Preparation 100 Days plan class 12 Maths

DAY - 76
Example12.1
Examine the binary operation (closure property) of the following
operations on the respective sets (if it is not, make it binary):
(i) $a*b = a+3ab-5b^2; \forall a,b \in \mathbb{Z}$ (ii) $a*b = \left(\frac{a-1}{b-1}\right), \forall a,b \in \mathbb{Q}$
Example 12.2
Verify the (i) closure property, (ii) commutative property, (iii) associative property
(iv) existence of identity and (v) existence of inverse for the arithmetic
operation $+$ on \mathbb{Z} .
Example 12.3
Verify the (i) closure property, (ii) commutative property, (iii) associative
property (iv) existence of identity and (v) existence of inverse for
the arithmetic operation — on \mathbb{Z} .
Example 12.4
Verify the (i) closure property, (ii) commutative property,
(iii) associative property (iv) existence of identity and
(v) existence of inverse for the arithmetic operation + on
\mathbb{Z}_e = the set of all even integers.
Example 12.5
Verify the (i) closure property, (ii) commutative property,
(iii) associative property (iv) existence of identity and
(v) existence of inverse for the arithmetic operation + on
\mathbb{Z}_o = the set of all odd integers.