



Integers Ex 1.1 Q6

Answer :

Negative numbers, when multiplied even number of times, give a positive number. However, when multiplied odd number of times, they give a negative number. Therefore, we have:

(i) (negative) 8 times \times (positive) 1 time = **positive** \times **positive** = positive integer

(ii) (negative) 21 times \times (positive) 3 times = **negative** \times **positive** = negative integer

(iii) (negative) 199 times \times (positive) 10 times = **negative** \times **positive** = negative integer

Integers Ex 1.1 Q7

Answer :

$$(i) (8 + 9) \times 10 = 170 > 8 + 90 = 98$$

$$(ii) (8 - 9) \times 10 = -10 > 8 - 90 = -82$$

$$(iii) \{(-2) - 5\} \times (-6) = -7 \times (-6) = 42 > (-2) - 5 \times (-6) = (-2) - (-30) = -2 + 30 = 28$$

Integers Ex 1.1 Q8

Answer :

$$(i) a \times (-1) = -30$$

When multiplied by a negative integer, a gives a negative integer. Hence, a should be a positive integer.

$$a = 30$$

$$(ii) a \times (-1) = 30$$

When multiplied by a negative integer, a gives a positive integer. Hence, a should be a negative integer.

$$a = -30$$

Integers Ex 1.1 Q9

Answer :

(i)

$$\text{LHS} = 19 \times \{7 + (-3)\} = 19 \times \{4\} = 76$$

$$\text{RHS} = 19 \times 7 + 19 \times (-3) = 133 + (-57) = 76$$

Because LHS is equal to RHS, the equation is verified.

(ii)

$$\text{LHS} = (-23) \{(-5) + 19\} = (-23) \{14\} = -322$$

$$\text{RHS} = (-23) \times (-5) + (-23) \times 19 = 115 + (-437) = -322$$

Because LHS is equal to RHS, the equation is verified.

Integers Ex 1.1 Q10

Answer :

(i) True. Product of two integers with opposite signs give a negative integer.

(ii) True. Negative integers, when multiplied odd number of times, give a negative integer.

(iii) False. Product of two integers, one of them being a negative integer, is not necessarily positive. For example, $(-1) \times 2 = -2$

(iv) False. For two non-zero integers a and b , their product is not necessarily greater than either a or b . For example, if $a = 2$ and $b = -2$, then, $a \times b = -4$, which is less than both 2 and -2 .

(v) False. Product of a negative integer and a positive integer can never be zero.

(vi) True. If $a > 1$, then, $a \times b \neq b \times a \neq b$

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