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 × (positive) 1 time = **positive** × **positive** = positive integer

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

(iii) (negative) 199 times × (positive) 10 times = **negative** × **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)

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

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

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

(ii)

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

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

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, $\mathbf{a} \times \mathbf{b} \neq \mathbf{b} \times \mathbf{a} \neq \mathbf{b}$

********** END **********