

Class-7 Mathematics

Exercise-1.4

1. Evaluate each of the following:

(a) $(-30) \div 10$

Solution:-

$$= (-30) \div 10$$

$$= -3$$

(b) $50 \div (-5)$

Solution:-

$$= (50) \div (-5)$$

$$= -10$$

(c) $(-36) \div (-9)$

Solution:-

$$= (-36) \div (-9)$$

$$= 4$$



$$(d) (-49) \div (49)$$

Solution:-

$$= (-49) \div 49$$

$$= -1$$

$$(e) 13 \div [(-2) + 1]$$

Solution:-

$$= 13 \div [(-2) + 1]$$

$$= 13 \div (-1)$$

$$= -13$$

$$(f) 0 \div (-12)$$

Solution:-

$$= 0 \div (-12)$$

$$= 0$$

$$(g) (-31) \div [(-30) + (-1)]$$

Solution:-

$$= (-31) \div [(-30) + (-1)]$$

$$= (-31) \div [-30 - 1]$$

$$= (-31) \div (-31)$$

$$= 1$$

$$(h) [(-36) \div 12] \div 3$$

Solution:-

First we have to solve the integers with in the bracket,

$$= [(-36) \div 12]$$

$$= (-36) \div 12$$

$$= -3$$

$$= (-3) \div 3$$



$$= (-3) \div 3$$

$$= -1$$

$$(i) [(-6) + 5] \div [(-2) + 1]$$

Solution:-

The given question can be written as,

$$= [-1] \div [-1]$$

$$= 1$$

2. Verify that $a \div (b + c) \neq (a \div b) + (a \div c)$ for each of the following values of a, b and c.

$$(a) a = 12, b = -4, c = 2$$

Solution:-

From the question, $a \div (b + c) \neq (a \div b) + (a \div c)$

$$\text{Given, } a = 12, b = -4, c = 2$$

Now, consider LHS = $a \div (b + c)$

Now, consider LHS = $a \div (b + c)$

$$= 12 \div (-4 + 2)$$

$$= 12 \div (-2)$$

$$= -6$$

Then, consider RHS = $(a \div b) + (a \div c)$

$$= (12 \div (-4)) + (12 \div 2)$$

$$= (-3) + (6)$$

$$= 3$$

(b) $a = (-10), b = 1, c = 1$

Solution:-

From the question, $a \div (b + c) \neq (a \div b) + (a \div c)$

Given, $a = (-10), b = 1, c = 1$

Now, consider LHS = $a \div (b + c)$

$$= (-10) \div (1 + 1)$$

$$= (-10) \div (2)$$

$$= -5$$

Then, consider RHS = $(a \div b) + (a \div c)$

$$= ((-10) \div (1)) + ((-10) \div 1)$$

$$= (-10) + (-10)$$

$$= -10 - 10$$

$$= -20$$

By comparing LHS and RHS

$$= -5 \neq -20$$

$$= \text{LHS} \neq \text{RHS}$$

Hence, the given values are verified.

3. Fill in the blanks:

(a) $369 \div \underline{\quad} = 369$

Solution:-

Let us assume the missing integer be x,

Then,

$$= 369 \div x = 369$$

$$= x = (369/369)$$

$$= x = 1$$

Now, put the value of x in the blank.

$$= 369 \div 1 = 369$$

$$(b) (-75) \div \underline{\quad} = -1$$

Solution: \equiv

Let us assume the missing integer be x ,

Then,

$$= (-75) \div x = -1$$

$$= x = (-75/-1)$$

$$= x = 75$$

..

$$= (-206) \div x = 1$$

$$= x = (-206/1)$$

$$= x = -206$$

Now, put the value of x in the blank.

$$= (-206) \div (-206) = 1$$

$$(d) \Rightarrow 87 \div \underline{\quad} = 87$$

Solution:-

Let the missing integer be x.

$$(e) \underline{\quad} \div 1 = -87$$

Solution:-

Let us assume the missing integer be x ,

Then,

$$= (x) \div 1 = -87$$

$$= x = (-87) \times 1$$

$$= x = -87$$

Now, put the value of x in the blank.

$$= (-87) \div 1 = -87$$

$$(f) \underline{\quad} \div 48 = -1$$

Solution:-

Let us assume the

$$= x = (-1) \times 48$$

$$= x = -48$$

Now, put the value of x in the blank.

$$= (-48) \div 48 = -1$$

$$(g) 20 \div \underline{\quad} = -2$$

Solution:-

Let us assume the missing integer be x ,

Then,

$$= 20 \div x = -2$$

$$= x = (20) / (-2)$$

$$= x = -10$$

Solution:-

Let us assume the missing integer be x ,

Then,

$$= (x) \div 4 = -3$$

$$= x = (-3) \times 4$$

$$= x = -12$$

Now, put the value of x in the blank.

$$= (-12) \div 4 = -3$$

... integers (a, b) such that

4. Write five pairs of integers (a, b) such that $a \div b = -3$. One such pair is (6, -2) because $6 \div (-2) = (-3)$.

Solution:-

(i) (15, -5)

Because, $15 \div (-5) = (-3)$

(ii) (-15, 5)

Because, $(-15) \div (5) = (-3)$

(iii) (18, -6)

Because, $18 \div (-6) = (-3)$

(iv) (-18, 6)

Because, $(-18) \div 6 = (-3)$

(v) (21, -7)

Because, $21 \div (-7) = (-3)$