PUBLIC SCHOOL DARBHANGA

SESSION (2020-21) CLASS 7
MATHEMATICS
INTEGERS
WORKSHEET NO.2

1. Write down a pair of integers whose:

   (a) sum is –7   (b) difference is –10   (c) sum is 0

2. (a) Write a pair of negative integers whose difference gives 8.

   (a) Write a negative integer and a positive integer whose sum is –5.

   (b) Write a negative integer and a positive integer whose difference is –3.

3. In a quiz, team A scored – 40, 10, 0 and team B scored 10, 0, – 40 in three successive rounds. Which team scored more? Can we say that we can add integers in any order?

4. Fill in the blanks to make the following statements true:

   (i) $(-5) + (-8) = (-8) + ($ .... $)$

   (ii) $-53 +$ .... $= -53$

   (iii) $17 +$ .... $= 0$

   (iv) $[13 + (-12)] + ($ .... $) = 13 + [(-12) + (-7)]$

   (v) $(-4) + [15 + (-3)] = [-4 + 15] +$ ....

ANSWERS:

1. Write down a pair of integers whose:

(a) sum is -7 Solution:- $= -4 + (-3)$

$= -4 - 3 \ldots [\because (+ \times - = -)]$

$= -7$

(b) difference is – 10 Solution:- $= -25 - (-15)$

$= -25 + 15 \ldots [\because (- \times - = +)]$

$= -10$

(c) sum is 0 Solution:-

$= 4 + (-4)$

$= 4 - 4$

$= 0$

2.   (a) Write a pair of negative integers whose difference gives 8 Solution:-

$= (-5) - (-13)$

$= -5 + 13 \ldots [\because (- \times - = +)]$

$= 8$

(b) Write a negative integer and a positive integer whose sum is – 5.

Solution:- $=$

$-25 + 20 = -$

5

(c) Write a negative integer and a positive integer whose difference is – 3.

Solution:- $=$

$-6 - (-3)$

$= -6 + 3 \ldots [\because (- \times - = +)]$

$= -3$

3. In a quiz, team A scored – 40, 10, 0 and team B scored 10, 0, – 40 in three successive rounds. Which team scored more? Can we say that we can add integers in any order?

Solution:-

From the question, it is given that

Score of team A = -40, 10, 0

Total score obtained by team A $= -40 + 10 + 0$

$= -30$

Score of team B = 10, 0, -40

Total score obtained by team B $= 10 + 0 + (-40)$

$= 10 + 0 - 40$

= – 30

Thus, the score of the both A team and B team is same.

Yes, we can say that we can add integers in any order.

4. Fill in the blanks to make the following statements true:

(i) (–5) + (– 8) = (– 8) + (…………) Solution:-

Let us assume the missing integer be x,

Then,

= (–5) + (– 8) = (– 8) + (x)

= – 5 – 8 = – 8 + x

= – 13 = – 8 + x

By sending – 8 from RHS to LHS it becomes 8,

= – 13 + 8 = x

= x = – 5

Now substitute the x value in the blank place,

(–5) + (– 8) = (– 8) + (- 5) … [This equation is in the form of Commutative law of Addition]

(ii) –53 + ………… = –53 Solution:-

Let us assume the missing integer be x,

Then,

= –53 + x = –53

By sending – 53 from LHS to RHS it becomes 53,

= x = -53 + 53

= x = 0

Now substitute the x value in the blank place,

= –53 + 0 = –53 … [This equation is in the form of Closure property of Addition]

(iii) 17 + ………… = 0

Solution:-

Let us assume the missing integer be x,

Then,

= 17 + x = 0

By sending 17 from LHS to RHS it becomes -17,

= x = 0 – 17

= x = – 17

Now substitute the x value in the blank place,

= 17 + (-17) = 0 … [This equation is in the form of Closure property of Addition] =

17 – 17 = 0

(iv) [13 + (– 12)] + (…………) = 13 + [(–12) + (–7)] Solution:-

Let us assume the missing integer be x,

Then,

= [13 + (– 12)] + (x) = 13 + [(–12) + (–7)]

= [13 – 12] + (x) = 13 + [–12 –7]

= [1] + (x) = 13 + [-19]

= 1 + (x) = 13 – 19

= 1 + (x) = -6

By sending 1 from LHS to RHS it becomes -1,

= x = -6 – 1

= x = -7

Now substitute the x value in the blank place,

= [13 + (– 12)] + (-7) = 13 + [(–12) + (–7)] … [This equation is in the form of Associative property of Addition]

(v) (– 4) + [15 + (–3)] = [– 4 + 15] +………… Solution:-

Let us assume the missing integer be x,

Then,

= (– 4) + [15 + (–3)] = [– 4 + 15] + x

= (– 4) + [15 – 3)] = [– 4 + 15] + x

= (-4) + [12] = [11] + x

= 8 = 11 + x

By sending 11 from RHS to LHS it becomes -11,

= 8 – 11 = x

= x = -3

Now substitute the x value in the blank place,

= (– 4) + [15 + (–3)] = [– 4 + 15] + -3 … [This equation is in the form of Associative property of Addition]