

DON BOSCO SCHOOL, KOKAR, RANCHI

Session-2020 - 2021

Class 6

Subject- Mathematics 1

Book Visualising Mathematics 6

Chapter: Integers

Ex 3.1

(Revision of class 5)

(Children can do this exercise in their copy) (Question Number 1 ,2,3,4,5,6,7,8)

(Already have done in class 5)

Absolute value of an integer is its numerical value irrespective of its sign.

Q9. Write the absolute value of each of the following

1. The absolute value of -9 is represented as $|-9|$, which is equal to 9
2. The absolute value of 23 is represented as $|23|$, which is equal to 23
3. The absolute value of 2 is represented as $|2|$ which is equal to 2
4. The absolute value of -211 is represented as $|-211|$, which is equal to 211
5. The absolute value of -10 is represented as $|-10|$ which is equal to 10
6. The absolute value of - 53 is represented as $|-53|$, which is equal to 53

Note: The questions of the chapter have already been explained in the previous class. As such the other questions are to be made as an assignment.

Exercise 3.3

Q1. Subtract:

1. 13 from 6

$$+6-(+13)$$

$$+6-13=-8$$

{+X+=+}. (Plus x plus= plus)

{-x=-}. (Minus x minus= minus)

{+X=-}. (Plus x minus = minus)

{-x += -} (minus x plus= minus)

Q2 Evaluate

$$\begin{aligned} 1. & (-389) - 216 \\ & = (-389) + (-216) \\ & = -389 - 216 \\ & = -605 \text{ Ans.} \end{aligned}$$

$$\begin{aligned} 2. & -126 - 492 \\ & = -(126) + (-492) \\ & = -126 - 492 \\ & = -618 \text{ Ans} \end{aligned}$$

$$\begin{aligned} \text{Q3} \\ & -576 - (-425) \\ & = (-576) + 425 \\ & = -151 \text{ Ans.} \end{aligned}$$

$$\begin{aligned} \text{Q4.} \\ & 380 - (-120) - (-65) \end{aligned}$$

$$\begin{aligned} & = 380 + 120 + 65 \\ & = 565 \text{ Ans.} \end{aligned}$$

Q3. Number line already you have done in class 5.

Q4. What must be added to:

a. -72 to get 45

$$\begin{aligned} & 45 - (-72) \\ & 45 + 72 \\ & 117 \text{ Ans.} \end{aligned}$$

b.

$$\begin{aligned} & -37 \text{ to get } -19 \\ & -19 + 37 \\ & = 18 \text{ Ans.} \end{aligned}$$

Q5 Subtract the successor of -27 from the predecessor of -39.

$$\begin{aligned} & \text{Successor of } -27 \text{ is } -26 \\ & \text{And predecessor of minus } 39 \text{ is } -40 \\ & \text{So, show } -40 - (-26) \\ & = -40 + 26 \\ & = -14 \text{ Ans.} \end{aligned}$$

Q6. Kanika house is 165m to my left and Richa's house is 239 to my right. How far is Kanika house from Richa's house?

Kanika's house _____my position _____Ric house.
165(my left)_____to words right239.

Kanika house on my left =165m
Richa's house is 239 m on my right=239

The total distance between them
 $165m+239m=404m$

Q7.Ans.

The distance above sea level is =18 m
The distance below sea level =13 m
The difference in heights between them
 $28-(-13)$
31m Ans.

**Q8. From the sum of - 5376 and 3744 ,
subtract the sum of - 2 150 and 1125**

Sum of - 5376 and 3744

$=3744 +(-5376)$
 $=3744-5376$
 $=-1632$

And sum of - 2150 and 1125
 $=1125 + (-2150)$
 $=1125 - 2150$
 $=-1025$

Now subtracting - 1025 from - 1632
We get $(-1632) -(-1025)$
 $=-1632+1025$
 $=-607$ Ans.

Q9.

Find the value of the following.

$-12+(-7)+36+(-32)+(-49)$
 $-12-7+36-32-49$
 $36-12-7-32-49$
 $36-100$
 -64 Ans.

b.

(Do it yourself)

Q10.

The sum of two integers is - 23 if one of the integers is 145 find the other.

We have to find a number which when added to 145 gives -23

As such required number = $-23 - 145$

$$= -23 + (-145)$$

$$= -23 - 145$$

$$= -168 \text{ Ans.}$$

Q11. The sum of two integers is 79. if one of the integer is -43, find the other.

Here we have to find a number which when added to -43 gives 79.

As such required number = $79 - (-43)$

$$= 79 + 43 = 122 \text{ And}$$

Q12.

In a quiz competition team A scored -25 ,10 ,15, - 10 and team B scored 15, 0, - 30 ,20 in four successive rounds. Which team scored more?

$$\text{Team A} = (-25) + 10 + 15 + (-10) = (-10)$$

$$\text{Team B} = 15 + 0 + (-30) + 20 = 5 \text{ more}$$

So team B scored more.

Facts to remember

- **0 is an integer which is neither positive nor negative**
 - **On the number line of integers all numbers to the right of zero are positive integers and all numbers to the left of zero or negative integers.**
 - **Two integers are at the same distance from 0 but on opposite sides of it are called opposite numbers.**
 - **To add two positive integers find the sum of their absolute values and place a positive sign before it.**
 - **To add two negative integers find the sum of their absolute values and place a negative sign before it.**
 - **To add a positive integer with a negative integer find the difference of their absolute values and place the sign of the addend with the greater absolute value before it.**
 - **The integer 0 is called The additive identity.**
-