



Edu Junior

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CLASS 6TH

MATHS

CHAPTER – 6th

INTEGERS

EXERCISE- 6.1

NCERT SOLUTION

1. Write opposites of the following:

(a) Increase in weight

Ans.

Decrease in weight

(b) 30 km north

Ans.

30km South

(c) 80 m east

Ans.

80km west

(d) Loss of Rs 700

Ans.

Profit of Rs. 700

(e) 100 m above sea level

Ans.

100m below sea level

2. Represent the following numbers as integers with appropriate signs.

(a) An aeroplane is flying at a height two thousand metre above the ground.

Ans.

+ 2000

(b) A submarine is moving at a depth, eight hundred metre below the sea level.

Ans.

- 800

(c) A deposit of rupees two hundred.

Ans.

+ 200

(d) Withdrawal of rupees seven hundred.

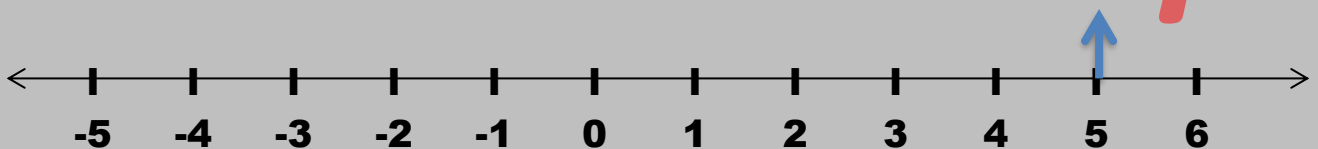
Ans.

- 700

3. Represent the following numbers on a number line:

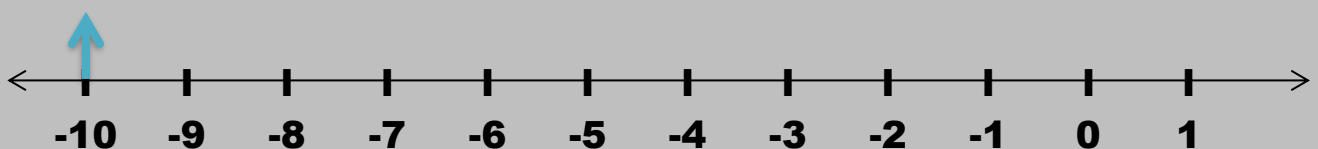
(a) + 5

Ans.



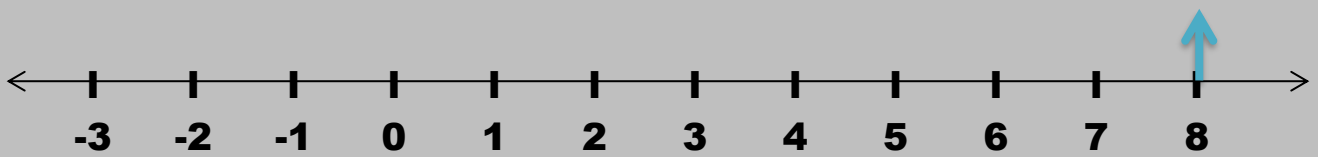
(b) - 10

Ans.



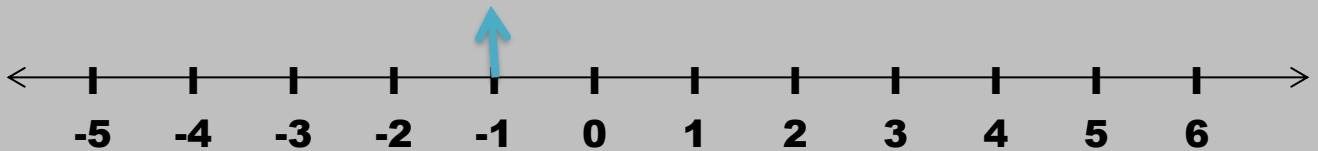
(c) + 8

Ans.



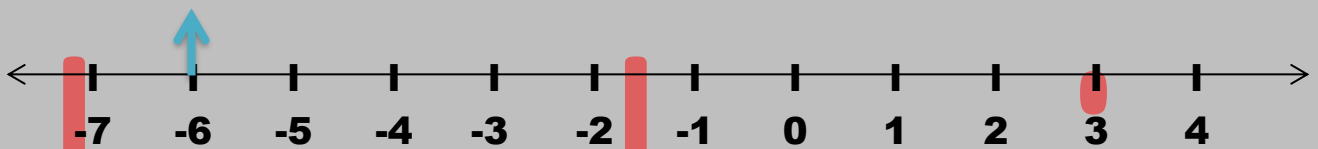
(d) – 1

Ans.



(e) – 6

Ans.



4. Adjacent figure is a vertical number line, representing integers. Observe it and locate the following points:

(a) If point D is + 8, then which point is – 8?

Ans.

F

(b) Is point G a negative integer or a positive integer?

Ans.

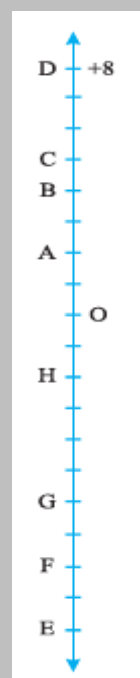
Negative integer

(c) Write integers for points B and E.

Ans.

B = + 4

E = - 10



(d) Which point marked on this number line has the least value?

Ans.

E

(e) Arrange all the points in decreasing order of value.

Ans.

D, C, B, A, H, G, F, E

5. Following is the list of temperatures of five places in India on a particular day of the year.

Place Temperature

Siachin 10°C below 0°C

Shimla 2°C below 0°C

Ahmedabad 30°C above 0°C

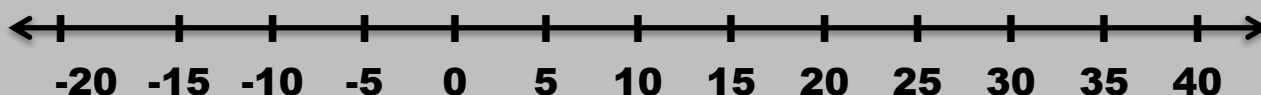
Delhi 20°C above 0°C

Srinagar 5°C below 0°C

(a) Write the temperatures of these places in the form of integers in the blank column.

(b) Following is the number line representing the temperature in degree Celsius.

Plot the name of the city against its temperature.



(c) Which is the coolest place?

(d) Write the names of the places where temperatures are above 10°C .

Ans.

(a)

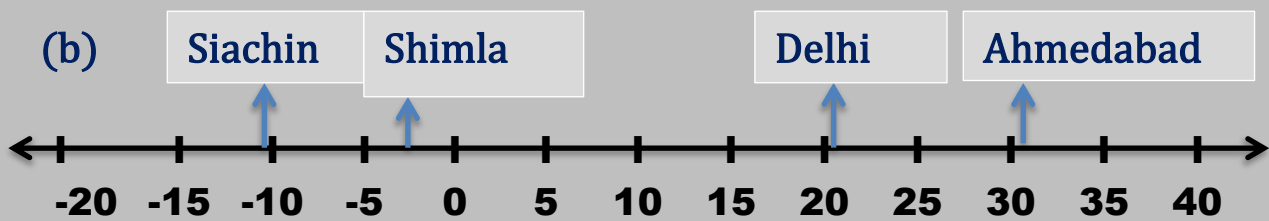
Siachin 10°C below 0°C -10°C

Shimla 2°C below 0°C -2°C

Ahmedabad 30°C above 0°C $+30^{\circ}\text{C}$

Delhi 20°C above 0°C $+20^{\circ}\text{C}$

Srinagar 5°C below 0°C -5°C



(c) Siachin is the coolest place.

(d) Delhi and Ahmedabad is the places where temperatures are above 10°C .

6. In each of the following pairs, which number is to the right of the other on the number line?

(a) 2, 9 (b) -3 , -8 (c) 0, -1

(d) -11 , 10 (e) -6 , 6 (f) 1, -100

Ans.

(a) 2, 9

9 is to the right of 2

(b) -3 , -8

-3 is to the right of -8

(c) 0, -1

0 is to the right of -1

(d) -11 , 10

10 is to the right of -11

(e) -6 , 6

6 is to the right of -6

(f) 1, -100

1 is to the right of -100

7. Write all the integers between the given pairs (write them in the increasing order.)

(a) 0 and - 7 (b) - 4 and 4 (c) - 8 and - 15 (d) - 30 and - 23

Ans.

(a) 0 and - 7

Integers between 0 to - 7 are

-6, -5, -4, -3, -2, -1.

(b) -4 and 4

Integer between - 4 and 4

-3, - 2, -1, 0, 1, 2, 3.

(c) - 8 and - 15

Integer between - 8 and - 15

- 14, - 13, - 12, - 11, -10, -9.

(d) - 30 and - 23

Integer between - 30 and - 23

- 29, - 28, - 27, - 26, - 25, - 24

8. (a) Write four negative integers greater than - 20.

(b) Write four integers less than - 10.

Ans.

(a) - 19, - 18, - 17, - 16 are the four negative integers greater than - 20.

(b) - 11, - 12, - 13, - 14 are four integers less than - 10.

9. For the following statements, write True (T) or False (F).

If the statement is false, correct the statement.

(a) - 8 is to the right of - 10 on a number line.

Ans.

True, $- 8 > - 10$.

(b) - 100 is to the right of - 50 on a number line.

Ans.

False, - 100 is to the left of - 50 on the number line.

(c) Smallest negative integer is - 1.

Ans.

False, - 1 is the greatest negative integer.

(d) - 26 is greater than - 25.

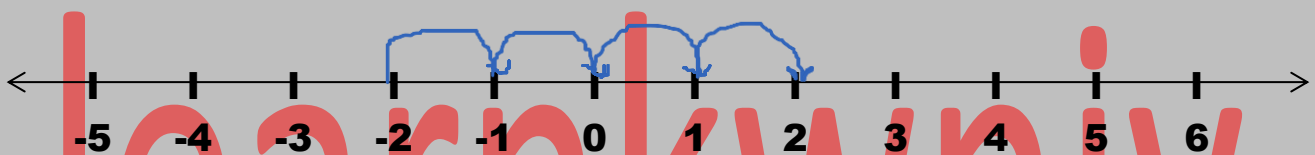
Ans.

False, - 26 is smaller than - 25.

10. Draw a number line and answer the following :

(a) Which number will we reach if we move 4 numbers to the right of - 2.

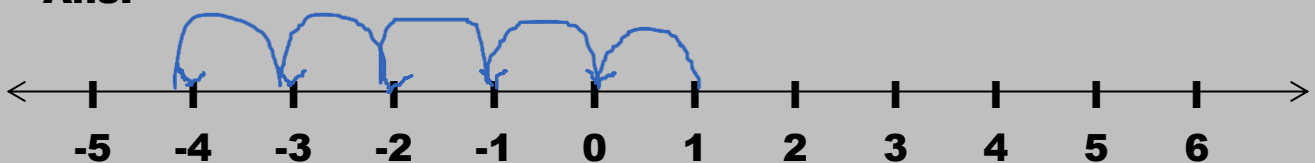
Ans.



If we move 4 numbers to the right of - 2, we will reach to 2.

(b) Which number will we reach if we move 5 numbers to the left of 1.

Ans.

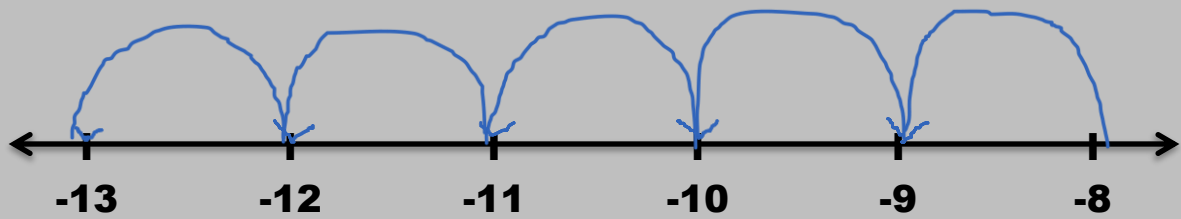


If we move 5 numbers to the left of 1, we will reach to - 4.

(c) If we are at - 8 on the number line, in which direction should we move to reach - 13?

Ans.

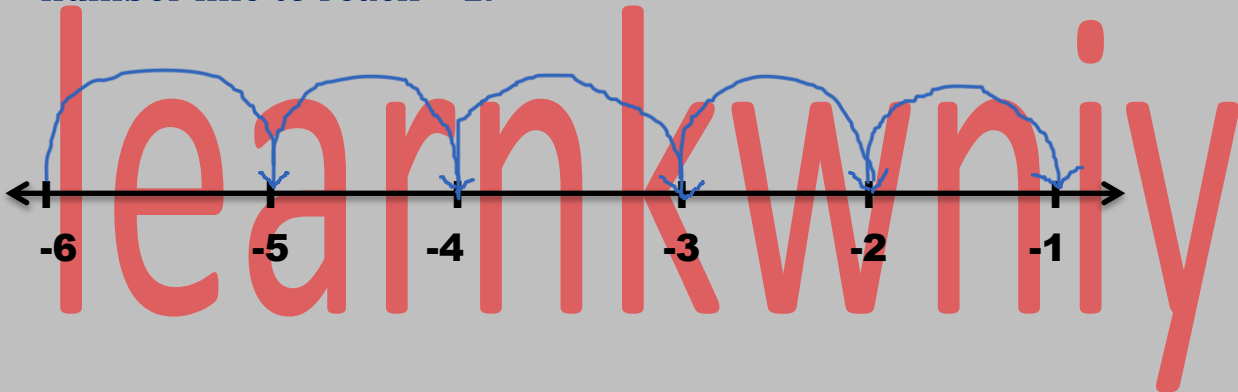
- 13 lies on the left of - 8 on the number line. Hence, we should move to the left.



(d) If we are at – 6 on the number line, in which direction should we move to reach – 1?

Ans.

If we are at – 6 on the number line we have to move to the right of number line to reach – 1.



EXERCISE- 6.2

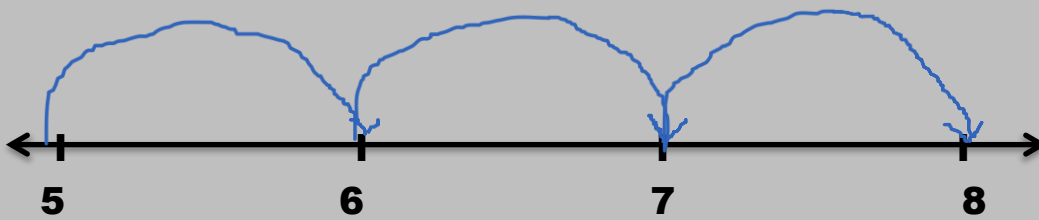
NCERT SOLUTION

1. Using the number line write the integer which is:

(a) 3 more than 5

Ans.

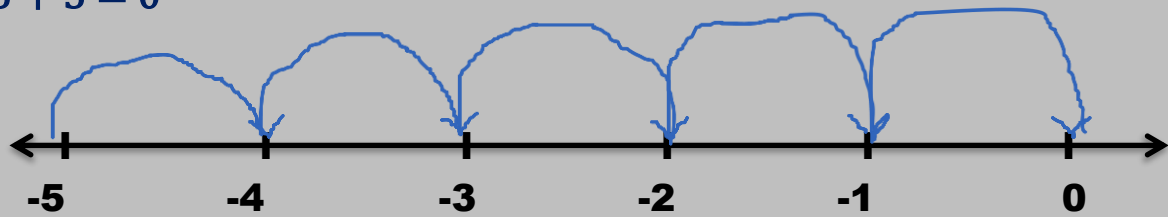
$$5 + 3 = 8$$



(b) 5 more than -5

Ans.

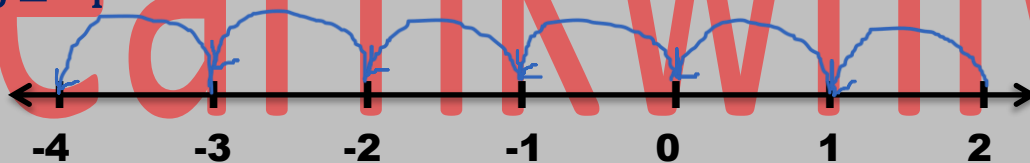
$$-5 + 5 = 0$$



(c) 6 less than 2

Ans.

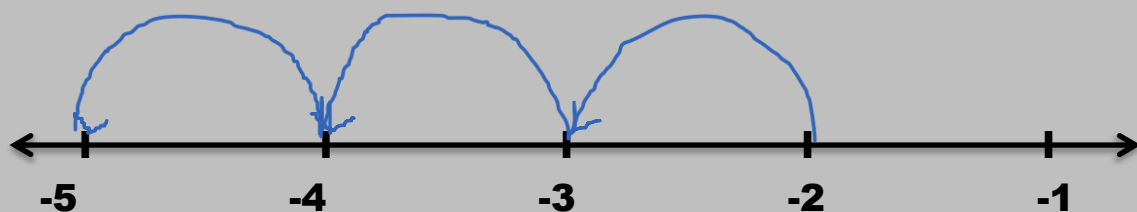
$$2 - 6 = -4$$



(d) 3 less than -2

Ans.

$$-2 - 3 = -5$$

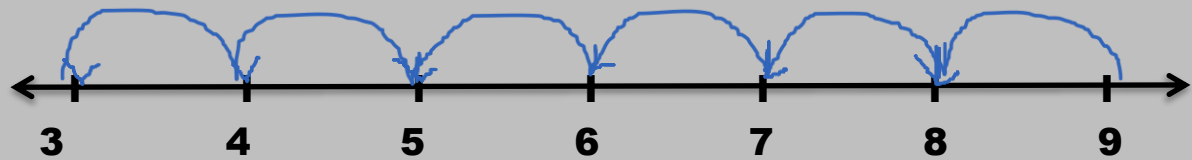


2. Use number line and add the following integers:

(a) $9 + (-6)$

Ans.

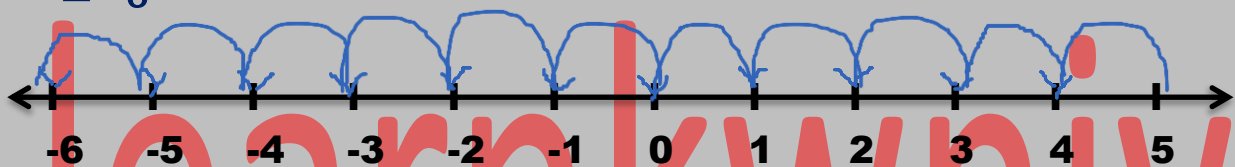
$$\begin{aligned} &9 + (-6) \\ &= 9 - 6 = 3 \end{aligned}$$



(b) $5 + (-11)$

Ans.

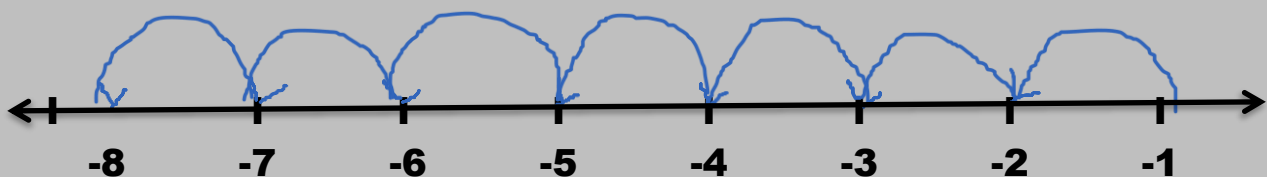
$$\begin{aligned} &5 + (-11) \\ &5 - 11 \\ &= -6 \end{aligned}$$



(c) $(-1) + (-7)$

Ans.

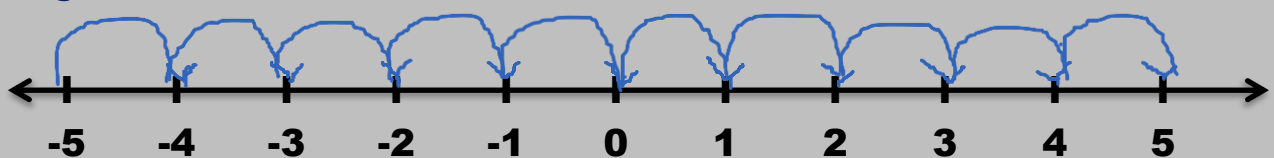
$$\begin{aligned} &(-1) + (-7) \\ &(-1) - 7 \\ &= -8 \end{aligned}$$



(d) $(-5) + 10$

Ans,

$$\begin{aligned} &(-5) + 10 \\ &= 5 \end{aligned}$$



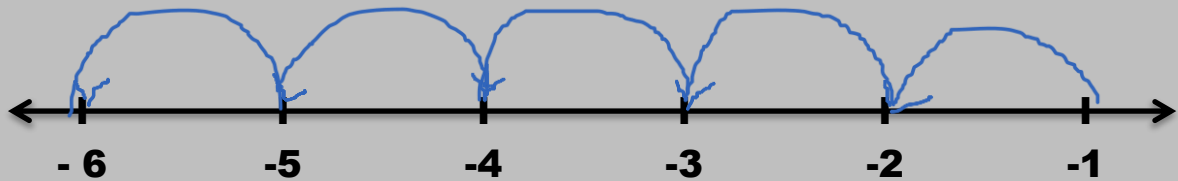
(e) $(-1) + (-2) + (-3)$

Ans.

$(-1) + (-2) + (-3)$

$(-1) - 2 - 3$

$= -6$



(f) $(-2) + 8 + (-4)$

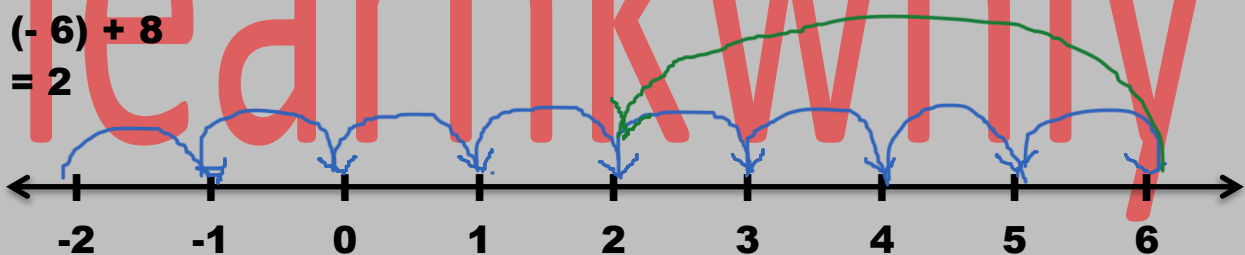
Ans.

$(-2) + 8 + (-4)$

$(-2) + 8 - 4$

$(-6) + 8$

$= 2$



3. Add without using number line:

(a) $11 + (-7)$

Ans.

$11 + (-7)$

$11 - 7$

$= 4$

(b) $(-13) + (+18)$

Ans.

$(-13) + (+18)$

$(-13) + 18$

$$= + 5$$

(c) $(- 10) + (+ 19)$

Ans.

$$(- 10) + (+ 19)$$

$$(-10) + 19$$

$$+ 9$$

(d) $(- 250) + (+ 150)$

Ans.

$$(- 250) + (+ 150)$$

$$(- 250) + 150$$

$$= - 100$$

(e) $(- 380) + (- 270)$

Ans.

$$(- 380) + (-270)$$

$$(- 380) - 270$$

$$= - 650$$

(f) $(- 217) + (- 100)$

Ans.

$$(- 217) + (- 100)$$

$$(- 217) - 100$$

$$= - 317$$

4. Find the sum of :

(a) 137 and $- 354$

Ans.

$$137 + (- 354)$$

$$137 - 354$$

$$= - 217$$

(b) $- 52$ and 52

Ans.

$$(- 52) + 52$$

$$= 0$$

(c) – 312, 39 and 192

Ans.

$$\begin{aligned} & (-312) + 39 + 192 \\ & (-312) + 231 \\ & = -81 \end{aligned}$$

(d) – 50, – 200 and 300

Ans.

$$\begin{aligned} & (-50) + (-200) + 300 \\ & (-50) - 200 + 300 \\ & -250 + 300 \\ & = 50 \end{aligned}$$

5. Find the sum:

(a) $(-7) + (-9) + 4 + 16$

Ans.

$$\begin{aligned} & (-7) + (-9) + 4 + 16 \\ & (-7) - 9 + 4 + 16 \\ & (-16) + 20 \\ & = 4 \end{aligned}$$

(b) $(37) + (-2) + (-65) + (-8)$

Ans.

$$\begin{aligned} & (37) + (-2) + (-65) + (-8) \\ & 37 - 2 - 65 - 8 \\ & 37 - 75 \\ & = -38 \end{aligned}$$

EXERCISE- 6.3

NCERT SOLUTION

1. Find

(a) $35 - (20)$

Ans.

$$35 - (20) = 15$$

(b) $72 - (90)$

Ans.

$$72 - (90) = -18$$

(c) $(-15) - (-18)$

Ans.

$$(-15) - (-18)$$

$$(-15) + 18 = 3$$

(d) $(-20) - (13)$

Ans.

$$(-20) - (13) = -33$$

(e) $23 - (-12)$

Ans.

$$23 - (-12)$$

$$23 + 12 = 35$$

(f) $(-32) - (-40)$

Ans.

$$(-32) - (-40)$$

$$(-32) + 40 = 8$$

2. Fill in the blanks with $>$, $<$ or $=$ sign.

(a) $(-3) + (-6)$ $<$ $(-3) - (-6)$

Ans.

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

$$= (-3) - 6 = -9$$

$$(-3) - (-6)$$

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

$$(b) (-21) - (-10) > (-31) + (-11)$$

Ans.

$$(-21) - (-10)$$

$$(-21) + 10$$

$$= -11$$

$$(-31) + (-11)$$

$$(-31) - 11 = -42$$

$$(c) 45 - (-11) > 57 + (-4)$$

Ans.

$$45 - (-11)$$

$$45 + 11$$

$$= 56$$

$$57 + (-4)$$

$$57 - 4$$

$$= 53$$

$$(d) (-25) - (-42) > (-42) - (-25)$$

Ans.

$$(-25) - (-42)$$

$$(-25) + 42$$

$$= 17$$

$$(-42) - (-25)$$

$$(-42) + 25$$

$$= -17$$

3. Fill in the blanks.

$$(a) (-8) + \underline{\quad} = 0$$

$$(b) 13 + \underline{\quad} = 0$$

$$(c) 12 + (-12) = \underline{\quad}$$

$$(d) (-4) + \underline{\quad} = -12$$

$$(e) \underline{\quad} - 15 = -10$$

Ans.

$$(a) (-8) + 8 = 0$$

$$(b) 13 + (-13) = 0$$

$$(c) 12 + (-12) = 0$$

$$(d) (-4) + (-8) = -12$$

$$(e) 5 - 15 = -10$$

4. Find

$$(a) (-7) - 8 - (-25)$$

Ans.

$$(-7) - 8 - (-25)$$

$$(-7) - 8 + 25$$

$$-15 + 25$$

$$= 10$$

$$(b) (-13) + 32 - 8 - 1$$

Ans.

$$(-13) + 32 - 8 - 1$$

$$(-22) + 32$$

$$= 10$$

$$(c) (-7) + (-8) + (-90)$$

Ans.

$$(-7) + (-8) + (-90)$$

$$(-7) - 8 - 90$$

$$= -105$$

$$(d) 50 - (-40) - (-2)$$

Ans.

$$50 - (-40) - (-2)$$

$$50 + 40 + 2$$

$$= 92$$