

Class- 6 Maths Solution

(By:prashant kumar)

6.Integers

Ex-6.1

Q1.Write opposites of the following:

- (a) Increase in weight
- (b) 30 km North
- (c) 326 BC
- (d) Loss of ₹700
- (e) 100 m above sea level.

Solution:

- (a) Decrease in weight
- (b) 30 km South
- (c) 326 AD
- (d) Profit of ₹700
- (e) 100 m below sea level.

Q2.Represent the following numbers as integers with appropriate signs.

- (a) An aeroplane is flying at a height two thousand metre above the ground.
- (b) A submarine is moving at a depth, eight hundred metre below the sea level.
- (c) A deposit of rupees two hundred.
- (d) Withdrawal of rupees seven hundred.

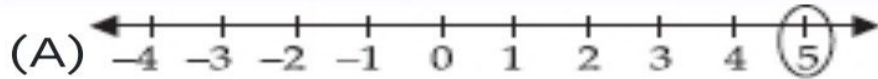
Solution:

- (a) +2000 m
- (b) -800 m
- (c) + ₹200
- (d) – ₹700

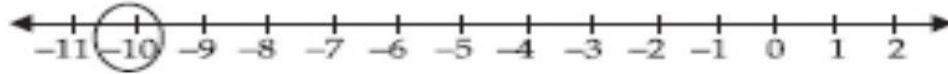
Q3.Represent the following numbers on a number line:

- (a) +5
- (b) -10
- (c) +8
- (d) -1
- (e) -6

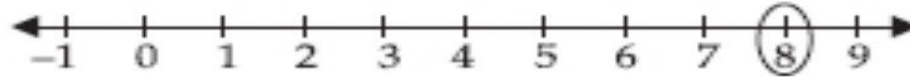
Solution:



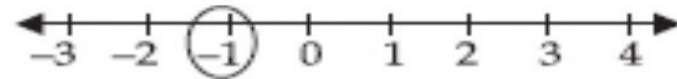
(B)



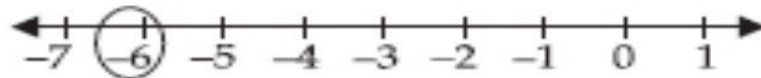
(C)



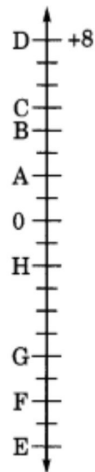
(D)



(E)



Q4. Adjacent figure is a vertical number line, representing integers. Observe it and locate the following points:



- If point D is +8, then which point is -8?
- Is point G a negative integer or a positive integer?
- Write integers for points B and E.
- Which point marked on this number line has the least value?
- Arrange all the points in decreasing order of value.

Solution:

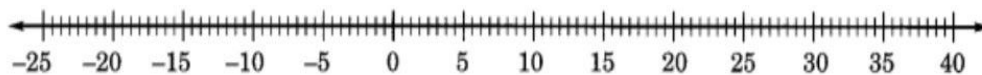
- F represents -8

- (b) G is a negative integer.
- (c) B represents +4 and E represents - 10
- (d) E has the least value of -10.
- (e) Decreasing order of all the points are: D, C, B, A, 0, H, G, F and E.

Q5. 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.



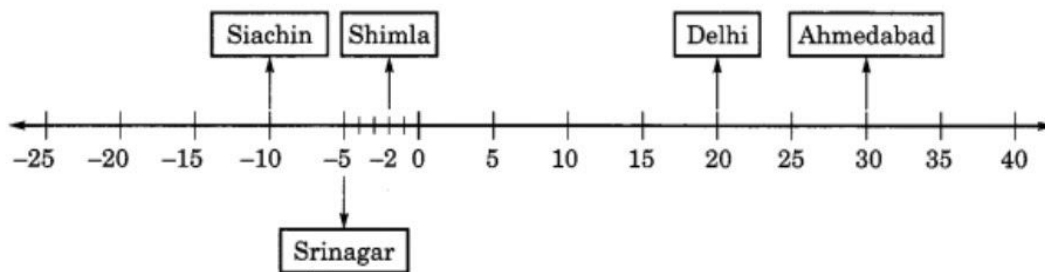
Plot the name of the city against its temperature.

- (c) Which is the coolest place?
- (d) Write the names of the places where temperatures are above 10°C.

Solution:

(a) Place	Temperature	In the form of integers
Siachin	10°C below 0°C	- 10°
Shimla	2°C below 0°C	- 2°C
Ahmedabad	30°C above 0°C	+ 30°C
Delhi	20°C above 0°C	+ 20°C
Srinagar	5°C below 0°C	- 5°C

(b)



- (c) Siachin is the coolest place with -10°C temperature.

- (d) (i) Delhi \rightarrow 20°C
(ii) Ahmedabad \rightarrow 30°C

Q6. 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

Solution:

- (a) 9 is to the right of 2
(b) -3 is to the right of -8
(c) 0 is to the right of -1
(d) 10 is to the right of -11
(e) 6 is to the right of -6
(f) 1 is to the right of -100.

Q7. 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

Solution:

- (a) Integers between 0 and -7 are:
-6, -5, -4, -3, -2, -1.
(b) Integers between -4 and 4 are:
-3, -2, -1, 0, 1, 2, 3.
(c) Integers between -8 and -15 are:
-14, -13, -12, -11, -10, -9.
(d) Integers between -30 and -23 are:
-29, -28, -27, -26, -25, -24.

Q8.(a) Write four negative integers greater than -20.

(b) Write four negative integers less than -10.

Solution:

- (a) Four negative integers greater than -20 are: -19, -18, -17, -16.
(b) Four negative integers less than -10 are: -11, -12, -13, -14.

Q9. 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.
(b) -100 is to the right of -50 on a number line.
(c) Smallest negative integer is -1
(d) -26 is greater than -25.

Solution:

- (a) True (T)

(b) False (F); Correction: -100 is to the left of -50 on a number line.

(c) False (F); Correction: There is no smallest negative integer.

(d) False (F); Correction: -26 is smaller than -25 .

Q10. Draw a number line and answer the following:

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

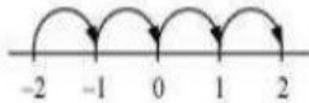
(b) Which number will we reach if we move 5 numbers to the left of 1 .

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

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

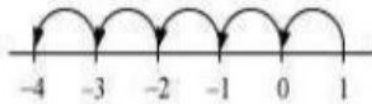
Solution:

(a)



We will reach at 2 , if we move 4 numbers to the right of -2 .

(b)



We will reach at -4 , if we move 5 numbers to the left of 1 .

(c)



Clearly, -13 is to the left of -8 . Therefore, we should move towards the left direction.

(d)



Clearly, -1 is to the right of -6 . Therefore, we should move towards the right direction.