Exercise 4A

Q9

Answer :

i) 36 > 7 > 0 > -3 > -9 > -132

ii) 51 > 0 > -2 > -8 > -53

iii) 36 > 0 > -5 > -71 > -81

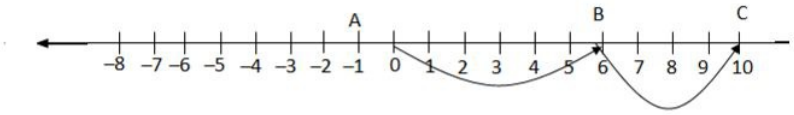
iv) 413 > 102 > -7 > -365 > -515

Q10

Answer :

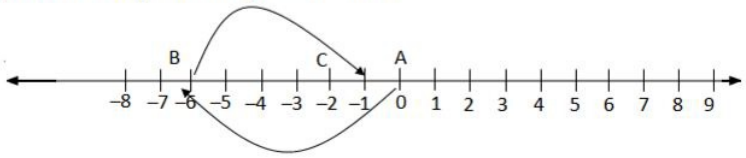
i) 4 more than 6

We want an integer that is 4 more than 6. So, we will start from 6 and proceed 4 steps to the right to obtain 10.



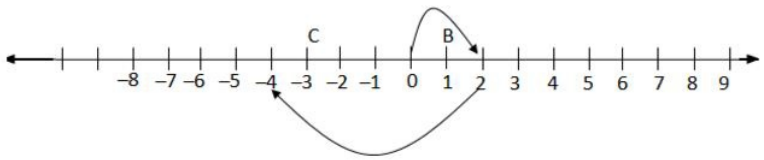
ii) 5 more than -6

We want an integer that is 5 more than -6. So, we will start from -6 and proceed 5 steps to the right to obtain -1.



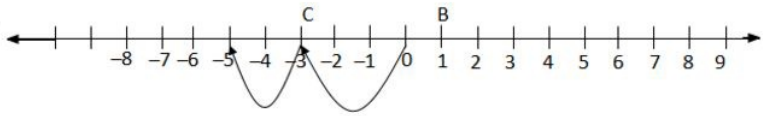
iii) 6 less than 2

We want an integer that is 6 less than 2. So, we will start from 2 and proceed 6 steps to the left to obtain -4.



iv) 2 less than -3

We want an integer that is 2 less than -3. So, we will start from -3 and proceed 2 steps to the left to obtain -5



Q11

Answer :

i) False
This is because 0 is greater than every negative integer.

ii) False
0 is an integer as we know that every whole number is an integer and 0 is a whole number.

iii) True
0 is an integer that is neither positive nor negative. So, the opposite of zero is zero.

iv) False
Since 10 is greater than 6, -10 is smaller than -6.

v) True
This is because an absolute value is a positive number. For example, -2 is an integer, but its absolute value is 2 and it is greater than -2.

vi) True
This is because all negative integers are to the left of 0.

vii) True
This is because natural numbers are positive and every positive integer is greater than every negative integer.

viii) False
This is because the successor of -187 is equal to -186 (-186 + 1). In succession, we move from the left to the right along a number line.

ix) False
This is because the predecessor of -215 is -216 (-216 - 1). To find the predecessor, we move from the right to the left along a number line.

Q12

Answer :

i) The value of |-9| is 9
ii) The value of |-36| is 36
iii) The value of |0| is 0
iv) The value of |15| is 15
v) The value of |-3| is 3
∴ -|-3| = -3
vi) 7 + |-3|
= 7 + 3 (The value of |-3| is 3)
= 10
vii) |7 - 4|
= |3|
= 3 (The value of |3| is 3)

viii) 8 - |-7|
= 8 - 7 (The value of |-7| is 7)
= 1

Q13

Answer :

i) Every negative integer that is to the right of -7 is greater than -7.
So, five negative integers that are greater than -7 are -6, -5, -4, -3, -2 and -1.
ii) Every negative integer that is to the left of -20 is less than -20.
So, five negative integers that are less than -20 are -21, -22, -23, -24 and -25.

********** END **********