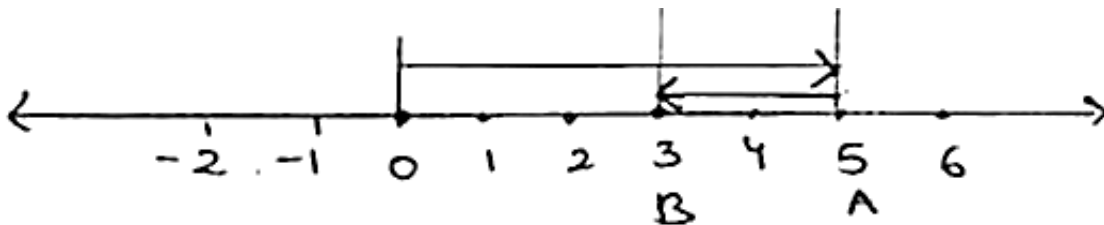


Exercise 5.2

Negative Numbers and Integers – Exercise – 5.2 – Q.1

Ans.

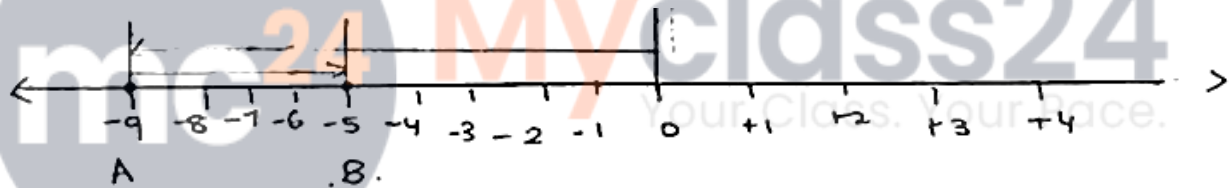
(i) $5 + (-2)$



We begin at 0 and first move five units to the right of zero to reach a point which represents +5. The second number 2 is negative. So, we move 2 units to the left of A to reach at B which represents 3.

Thus, we have $= 5 + (-2) = 3$.

(ii) $(-9) + 4$.

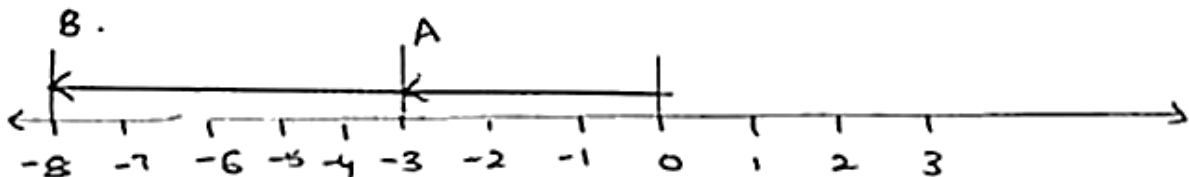


We begin at 0 and first move nine units to the left of zero to reach at A. Which represents -9. The second number 4 is positive. So we move 4 units to the right of A to reach at B. Which represents -5.

Thus, we have.

$$-9 + 4 = -5.$$

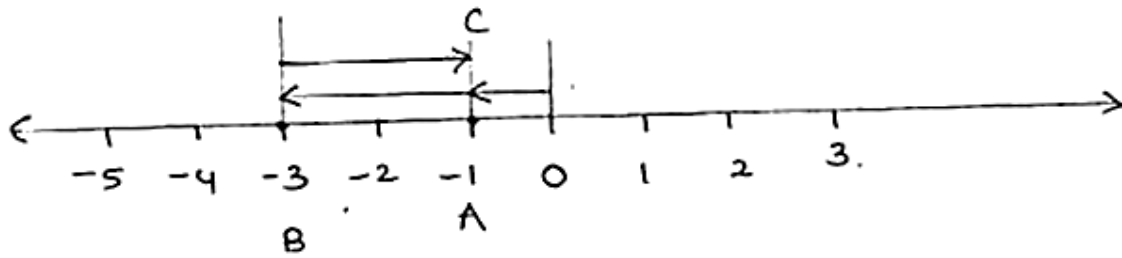
(iii) $(-3) + (-5)$.



We begin at 0 and first move three units to the left of zero to reach at A which represents -3. The second number +5 is negative. So we move 5 units to the left of A to reach at B which represents -8.

Thus we have $= (-3) + (-5) = -3 - 5 = -8$.

(iv) $(-1) + (-2) + 2$.

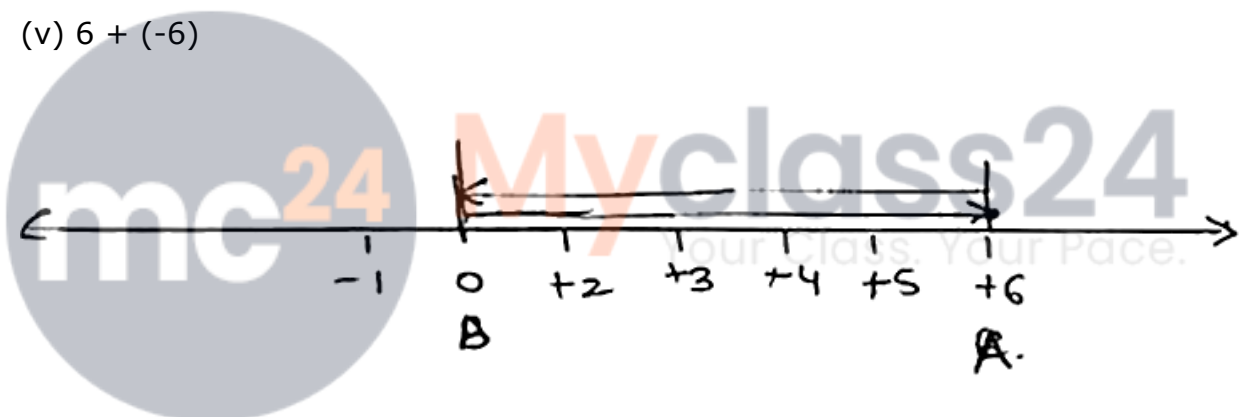


We begin at zero and first move one unit to the left of zero to reach at point A which represents -1. The second number 2 is negative.

So we move 2 units to the left of A to reach at B which represents -3. The Third number is 2 positive. So we move 2 units to the right of B. which is -1.

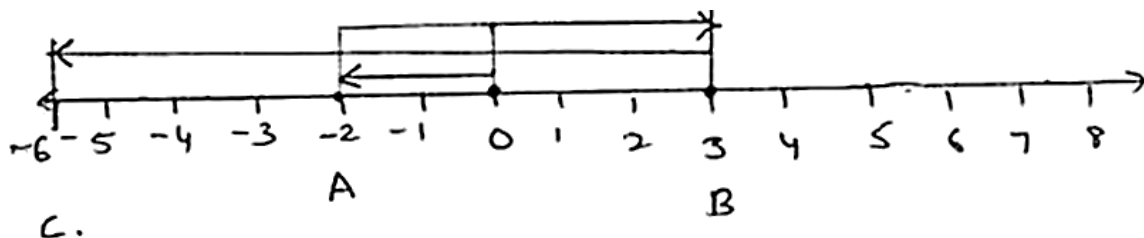
$$(-1) + (-2) + 2 = (-1) + 2 - 2 = -1.$$

(v) $6 + (-6)$



Thus we have $6 + (-6) = 0$

(vi) $(-2) + 5 + (-9)$.



Thus we have $= -2 + 5 + (-9)$

$$= 5 - 2 + (-9)$$

$$= 3 - 9$$

$$= -6.$$

Negative Numbers and Integers – Exercise – 5.2 – Q.2

Ans.

(i) – 557 and 488

The integers are to be added are of the unlike signs. Therefore to add them we find the difference of their absolute values and assign the sign of the addend having greater absolute value

$$\begin{aligned}(- 557) \text{ and } 488 &= |- 557| - |488| \\ &= 557 - 488\end{aligned}$$

$$= - 69.$$

(ii) - 522 + (-160) = - 522 - 160

$$= - 682$$

(iii) 2567 and -325

$$\begin{aligned}2567 + (-325) &= (2567) - (-325) \\ &= 2567 \text{ and } -325\end{aligned}$$

$$\begin{aligned}2567 + (-325) &= (2567) - (-325) \\ &= 2567 - 325\end{aligned}$$

$$= 2242$$

(iv) – 10025 and 139

$$-10025 + 139 = [-10025] + [139]$$

$$= -10025 + 139$$

$$= -9886.$$

(v) 2567+ (-2578) = 2547 - 2548

$$= -1.$$

(vi) 2884 + (-2884) = 2884 - 2884 = 0.