Negative Numbers and Integers Ex 5.3 Q5

Answer :

Let x be an integer such that $|x| < 5$.

$\therefore -5 < x < 5$

$\Rightarrow x =]-4, 4[$

These are the nine integers whose absolute values are less than 5, namely, -4, -3, -2, -1, 0, 1, 2, 3 and 4.

Negative Numbers and Integers Ex 5.3 Q6

Answer :

(i) $|4|+|2| = 6 = |4| + |2|$; True

(ii) $|2 - 4| = |-2| = 2 \neq 2 + 4 = 6$; False

(iii) $|4 - 2| = 2 = |4| - |2|$; True

(iv) $|(-2) + (-4)| = |-6| = 6 = |-2| + |(-4)|$; True

Negative Numbers and Integers Ex 5.3 Q7

Answer :

(i) (6, −6), (4, −4), (2, −2), (0, 0), (−2, 2), (−4, 4) and (−6,6).

(ii) $(-4) + (-2) = -6 = (-2) + (-4)$; Yes

(iii) $0 + (-6) = -6$; Yes

+	−6	−4	−2	0	2	4	6
6	0	2	4	6	8	10	12
4	−2	0	2	4	6	8	10
2	−4	−2	0	2	4	6	8
0	−6	−4	−2	0	2	4	6
−2	−8	−6	−4	−2	0	2	4
−4	−10	−8	−6	−4	−2	0	2
−6	−12	−10	−8	−6	−4	−2	0

Negative Numbers and Integers Ex 5.3 Q8

Answer :

(i) $x + 1 = 0 \Rightarrow x = -1$

(ii) $x + 5 = 0 \Rightarrow x = -5$

(iii) $-3 + x = 0 \Rightarrow x = 3$

(iv) $x + (-8) = 0 \Rightarrow x = 8$

(v) $7 + x = 0 \Rightarrow x = -7$

(vi) $x + 0 = 0 \Rightarrow x = 0$

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