

Exercise 5.4

Negative Numbers and Integers – Exercise – 5.4 – Q.1

Ans.

(i) Using the rule for subtraction, we have $-5 - 12 = -17$.

(ii) In order to subtract -12 from 8, $8 - (-12) = 8 + 12 = 20$.

(iii) $-135 - (-225) = 225 - 135 = 90$

(iv) $101 - 1001 = -900$

(v) $3126 - (-812) = 3126 + 812 = 3938$.

(vi) $-8 - 7560 = -7568$

(vii) $-4109 - (-3978) = -4109 + 3978 = -131$

(viii) $-1005 - 0 = -1005$

Negative Numbers and Integers – Exercise – 5.4 – Q.2

Ans.

(i) $-27 - (-23) = -27 + 23$

$= 23 - 27$

$= -4$

(ii) $-17 - 18 - (-35) = -35 + 35$

$= 0$

(iii) $-12 - (-5) - (-125) + 270 = -12 + 5 + 125 + 270$

$= 400 - 12$

$= 388$.

(iv) $373 + (-245) + (-373) + 145 + 3000 = 373 - 245 - 373 + 3145$

$= 3145 + 373 - 373 - 245$

$= 3145 - 245$

$= 2900$.

(v) $1 - 475 - 475 - 475 + 1900 = 1 - 950 - 950 + 1900$

$$= 1900 + 1 - 1900 = 1.$$

$$(vi) (-1) + (-304) + 304 + 304 + (-304) + 1 = -1 + 1 - 304 + 304 - 304 + 304 = 0$$

Negative Numbers and Integers – Exercise – 5.4 – Q.3

Ans.

The sum of 5020 and 2320 is $-5020 + 2320$

$$= 2320 - 5020$$

$$= -2700.$$

$$\Rightarrow -(-2700) + (-709) = -709 - (-2700)$$

$$= -709 + 2700$$

$$= 1991$$

Negative Numbers and Integers – Exercise – 5.4 – Q.4

Ans.

sum of -1250 and $1138 = -1250 + 1138$

$$= 1138 - 1250$$

$$= -112$$

Sum of 1136 and $-1272 = 1136 - 1272$

$$= -136$$

$$\Rightarrow -136 - (-112) = -136 + 112$$

$$= -24$$

Negative Numbers and Integers – Exercise – 5.4 – Q.5

Ans.

Sum of 233 and $-147 = 233 - 147$

$$= 86.$$

$$\Rightarrow 86 - (-284) = 86 + 284$$

$$= 370.$$

Negative Numbers and Integers – Exercise – 5.4 – Q.6

Ans.

Given that,

Sum of two integer's = 238.

one of the integer = -122

Required integer = $-(-122) + 238$

= $238 + 122$

360.

Negative Numbers and Integers – Exercise – 5.4 – Q.7

Ans.

Required integer = $-223 - 172$

= - 395.

Negative Numbers and Integers – Exercise – 5.4 – Q.8

Ans.

(i) $- 8 - 24 + 31 - 26 - 28 + 7 + 19 - 18 - 8 + 33$

= $- 8 - 24 - 26 - 28 - 18 - 8 + 31 + 7 + 19 + 33$

= $- 32 - 26 - 28 - 26 + 38 + 19 + 33$

= $38 - 32 - 26 - 28 + 33 - 26 + 19.$

= $6 - 26 - 28 + 7 + 19$

= $6 - 28 - 26 + 26$

= $6 - 28$

= -22.

(ii) $- 26 - 20 + 33 - (-33) + 21 + 24 - (-25) - 26 - 14 - 34$

= $- 46 + 33 + 33 + 21 + 24 + 25 - 26 - 14 - 34$

= $- 46 + 66 + 21 + 24 + 25 + -74$

= $- 46 + 66 + 70 - 74$

= $- 46 - 4 + 66$

$$= -50 + 66$$

$$= 66 - 50$$

$$= 16.$$

Negative Numbers and Integers – Exercise – 5.4 – Q.9

Ans.

$$1 - 2 + 3 - 4 + 5 - 6 + 7 - 8 + 9 - 10 + 11 - 12 + 13 - 14 + 15 - 16 = -1 -1 -1 -1 -1 -1 -1 -1 -1 -1$$

$$= -8$$

Negative Numbers and Integers – Exercise – 5.4 – Q.10

Ans.

(i) If the number of term is 10

$$5 + (-5) + 5 + (-5) + 5 + (-5) + 5 + (-5) + 5 + (-5)$$

$$= 5 - 5 + 5 - 5 + 5 - 5 + 5 - 5$$

$$= 0$$

(ii) If the number of terms is 11.

$$5 + (-5) + 5 + (-5) + 5 + (-5) + 5 + (-5) + 5 + (-5) + 5$$

$$= 5 - 5 + 5 - 5 + 5 - 5 + 5 - 5 + 5 - 5 + 5$$

$$= 5.$$