Negative Numbers and Integers Ex 5.3 Q1

Answer :

The additive inverse of the number a is the number added to a, yields zero. So, we find the following:

(i) $52 + (-52) = 0$
Here, -52 is the additive inverse of 52.

(ii) $(-176) + 176 = 0$
Here, 176 is the additive inverse of -176.

(iii) $0 + 0 = 0$
Here, 0 itself is its inverse.

(iv) $1 + (-1) = 0$
Here, -1 is the additive inverse of 1.

Negative Numbers and Integers Ex 5.3 Q2

Answer :

For the integer a, $a + 1$ will be its successor.

(i) -41 is the successor of -42.

(ii) 0 is the successor of -1.

(iii) 1 is the successor of 0.

(iv) -199 is the successor of 200.

(v) -98 is the successor of -99.

Negative Numbers and Integers Ex 5.3 Q3

Answer :

For the integer a, the predecessor is $(a - 1)$.

(i) -1 is the predecessor of 0.

(ii) 0 is the predecessor of 1.

(iii) -2 is the predecessor of -1.

(iv) -126 is the predecessor of -125.

(v) 999 is the predecessor of 1000.

Negative Numbers and Integers Ex 5.3 Q4

Answer :

(i) True – It is the definition of additive inverse; for example, $5 + (-5) = 0$.

(ii) False – For example, $-2 - 3 = -5$; it is a negative integer.

(iii) False – $-3 + 5 = 2$; it is a positive integer.

(iv) False – 0 is the successor of -1.

(v) False – It can be zero like $(-2) + (-1) + (3)$.

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