

RD SHARMA

Solutions

Class 6 Maths

Chapter 5

Ex 5.3

Exercise-5.3.

Solution-01:-

(i) Additive inverse of 52 is -52 .

(ii) 176

(iii) 0

(iv) -1

Solution-02

(i) Successor of -42 is $= -42 + (1)$
 $= 1 - 42$
 $= -41$

(ii) $-1 + 1 = 0$

(iii) $0 + 1 = 1$

(iv) $-200 + 1 = -199$

(v) $-99 + 1 = -98$.

Solution-03:-

(i) predecessor of 0 is $\Rightarrow 0 - 1 = -1$

(ii) $1 - 1 = 0$

(iii) $-1 - 1 = -2$

(iv) $-125 - 1 = -126$

(v) $1000 - 1 = 999$.

Solution-04:-

- (i) True
- (ii) False
- (iii) False
- (iv) False
- (v) False.

Solution-05:-

Integers whose absolute values less than 5 are
 $-4, -3, -2, -1, 0, 1, 2, 3, 4$.

Solution-06

- (i) True
- (ii) False
- (iii) True
- (iv) True

Solution-07:-

+	-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

$$(i) (+6, +6), (4, +4), (3, -3), (2, -2), (1, -1), (0, 0)$$

(ii) YES, by commutativity of Addition

$$(-4) + (-2) = (-2) + (-4)$$

(iii) By existence of additive identity

$$0 + (-6) = -6 \quad [\because 0 + a = a.]$$

Solution-08:

$$(i) x + 1 = 0$$

$$\Rightarrow x + 1 - 1 = 0 - 1$$

[Subtract '1' on both sides]

$$\Rightarrow x = -1$$

$$(ii) x + 5 = 0$$

$$x + 5 - 5 = 0 - 5$$

$$x + 0 = -5$$

$$\Rightarrow \boxed{x = -5}$$

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

$$-3 - 3 + x = 0 + 3$$

$$x = 3$$

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

$$x - 8 = 0$$

$$x - 8 + 8 = 0 + 8$$

$$x = 8$$

$$\textcircled{v} \quad 7 + x = 0$$

$$\Rightarrow 7 + x - 7 = 0 - 7$$

$$\Rightarrow x = -7$$

$$\textcircled{vi} \quad x + 0 = 0$$

$$x = 0.$$