Board –CBSE	Class – 6th	Topic – Integer Ex: 6.3

Exercise – 6.3

Q1. Find:

(a) 35 – (20)

(b) 72 – (90)

(c) (– 15) – (– 18)

(d) (– 20) – (13)

(e) 23 – (– 12)

(f) (– 32) – (-40)

Sol. (a) 35 – (20) = 15 + (20) – (20)

= 15 + 0 = 15 [(+a) + (– a) = 0]

(b) 72 – 90

72 – (72 + 18) = 72 – 72 – 18

= 0 – 18 = – 18 [a + (– a) = 0]

(c) (– 15) – (– 18)

= (– 15) + (additive inverse of – 18)

= (– 15) + (18) = 3

(d) (– 20) – (13)

(– 20) – (13) = – [20 + 13] = – 33

(e) 23 – (– 12)

23 – (–12) = 23 + (additive inverse of – 12)

= 23 + 12 = 35

(f) (– 32) – (–40)

(– 32) + (additive inverse of – 40)

= (–32) + 40 = 8

Q2. Fill in the blanks with >, < or = sign.

(a) (–3) + (–6) (–3) – (–6)

(b) (–21) – (–10) (– 31) + (–11)

(c) 45 – (–11) 57 + (–4)

(d) (–25) – (–42) (–42) – (–25)

Sol. (a) (–3) + (–6) = – [3 + 6] = – 9 and (–3) – (–6) = (–3) + 6 = 3

Here, – 9 < 3

∴ (– 3) + (– 6) < (– 3) – (– 6)

(b) (–21) – (–10) = (–21) + 10 = –11 and (–31) + (–11) = – (31 + 11) = – 42

Here, –42 < –11 or –11 > –42 ∴ (–21) , – (–10) >(–31)+ (–11)

(c) 45 – (–11) = 45 + 11 = 56 and 57 + (–4) = 57 –4 = 53

Here, 56 >53

∴ 45 – (–11) > 57 + (-4)

(d) (–25) – (–42) = –25 + 42 = 17

and (–42) – (–25) = –42 + 25 =–17

Here, 17 > –17

∴ (-25) – (–42) > (–42) – (–25).

Q3. Fill in the blanks.

(a) (–8) + ... = 0

(b) 13 + ... = 0

(c) 12 + (–12) = ...

(d) (–4) + ... = – 12

(e) .... –15 = – 10.

Sol. (a) (–8) + (additive inverse of –8) = 0

= (–8) + (8) = 0

∴ Value of blank is 8

(b) 13 + (additive inverse of 13) = 0

= 13 + (–13) = 0

∴ Value of blank is – 13

(c) 12 + (–12) = 0 [∵ –12 is additive inverse of 12]

∴ The Value of blank is 0

(d) (–4) + (–8) = – [4 + 8] = –12

∴ Value of blank is -8.

(e) (+5) – 15 =–10

∴ Value of blank is +5.

Q4. Find:

(a) (–7) – 8 – (–25)

(b) (–13) + 32 – 8 – 1

(c) (–7) + (–8) + (–90)

(d) 50 – (–40) – (–2)

Sol. (a) (–7) – 8 – (–25)

= (–7) – 8 + 25

[∵ Additive inverse of – 25 is 25]

= -7 + 17 = –7 + 7 +10

[∵ (–a) + (+a) = 0]

= 0 + 10 = 10.

b) (–13) + 32 – 8 – 1

= (–13) + (13) + 19 – (8 + 1)

= 0 + 19 – 9

= 19 – 9 [∵ (–13) + (13) = 0]

= 10 + 9 – 9 = 10 + 0 = 10.

[(+9) – (+9) = 0]

(c) (–7) + (–8) + (–90) = – (7 + 8) + (–90)

= –15 + (–90)

= – (15 + 90)

=–105.

(d) 50 – (-40) – (-2)

= 50 – [–40 – 2]

= 50 – (–42)

= 50 + 42

= 92.