

**Question 3:**

Fill in the blanks.

(a)  $(-8) + \underline{\hspace{2cm}} = 0$

(b)  $13 + \underline{\hspace{2cm}} = 0$

(c)  $12 + (-12) = \underline{\hspace{2cm}}$

(d)  $(-4) + \underline{\hspace{2cm}} = -12$

(e)  $\underline{\hspace{2cm}} - 15 = -10$

Answer:

(a)  $-8 + \underline{8} = 0$

(b)  $13 + \underline{(-13)} = 0$

(c)  $12 + (-12) = \underline{0}$

(d)  $-4 + \underline{(-8)} = -12$

(e)  $\underline{5} - 15 = -10$

**Question 4:**

Find:

(a)  $(-7) - 8 - (-25)$

(b)  $(-13) + 32 - 8 - 1$

(c)  $(-7) + (-8) + (-90)$

(d)  $50 - (-40) - (-2)$

Answer:

(a)  $-7 - 8 - (-25) = -7 - 8 + 25 = -15 + 25 = 10$

(b)  $(-13) + 32 - 8 - 1 = -13 + 32 - 8 - 1 = 32 - 22 = 10$

(c)  $(-7) + (-8) + (-90) = -7 - 8 - 90 = -105$

(d)  $50 - (-40) - (-2) = 50 + 40 + 2 = 92$

### Question 1

Renu purchases two bags of fertilizer of weights 75 kg and 69 kg. Find the maximum value of weight which can measure the weight of the fertilizer exact number of times.

### Answer 1

For finding maximum weight, we have to find H.C.F. of 75 and 69.

Factors of 75 =  $3 \times 5 \times 5$

Factors of 69 =  $3 \times 23$

H.C.F. = 3

Therefore the required weight is 3 kg

### Question 2

Three boys step off together from the same spot. Their steps measure 63 cm, 70 cm and 77 cm respectively. What is the maximum distance each should cover so that all can cover the distance in complete steps?

### Answer 2

For finding minimum distance, we have to find L.C.M of 63, 70 and 77.

| 7  | 63, 70, 77 |
|----|------------|
| 9  | 9, 10, 11  |
| 10 | 1, 10, 11  |
| 11 | 1, 1, 11   |
|    | 1, 1, 1    |

L.C.M. of 63, 70 and 77 =  $7 \times 9 \times 10 \times 11 = 6930$  cm.

Therefore, the minimum distance is 6930 cm.

**Question 6**

The traffic lights at three different road crossings change after every 48 seconds, 72 seconds and 108 seconds respectively. If they change simultaneously at 7 a.m, at what time will they change simultaneously again?

**Answer 6**

L.C.M. of 48, 72, 108 =  $2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 = 432$  sec.

After 432 seconds, the lights change simultaneously.

432 second = 7 minutes 12 seconds

Therefore the time = 7 a.m. + 7 minutes 12 seconds  
= 7:07:12 a.m.

|   |             |
|---|-------------|
| 2 | 48, 72, 108 |
| 2 | 24, 36, 54  |
| 2 | 12, 18, 27  |
| 2 | 6, 9, 27    |
| 3 | 3, 9, 27    |
| 3 | 1, 3, 9     |
| 3 | 1, 1, 3     |
|   | 1, 1, 1     |

**Question 7**

Three tankers contain 403 litres and 465 litres of diesel respectively. Find the maximum capacity of a container that can measure the diesel of three containers exact number of times.

**Answer 7**

The maximum capacity of container = H.C.F. (403, 434, 485)

Factors of 403 =  $13 \times 31$

Factors of 434 =  $2 \times 7 \times 31$

Factors of 485 =  $5 \times 97$

H.C.F. = 31

Therefore, 31 litres of container is required to measure the quantity.

**Question 8**

Find the least number which when divided by 6, 15 and 18, leave remainder 5 in each case

**Answer 8**

L.C.M. of 6, 15 and 18 =  $2 \times 3 \times 3 \times 5 = 90$

|   |           |
|---|-----------|
| 2 | 6, 15, 18 |
| 3 | 3, 15, 9  |
| 3 | 1, 5, 3   |
| 5 | 1, 5, 1   |
|   | 1, 1, 1   |

### Question 1:

Find:

(a)  $35 - (20)$  (b)  $72 - (90)$

(c)  $(-15) - (-18)$  (d)  $(-20) - (13)$

(e)  $23 - (-12)$  (f)  $(-32) - (-40)$

Answer:

(a)  $35 - 20 = 15$

(b)  $72 - 90 = -18$

(c)  $-15 - (-18) = -15 + 18 = 3$

(d)  $-20 - 13 = -33$

(e)  $23 - (-12) = 23 + 12 = 35$

(f)  $(-32) - (-40) = -32 + 40 = 8$

### Question 2:

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

(a)  $(-3) + (-6)$  \_\_\_\_\_  $(-3) - (-6)$

(b)  $(-21) - (-10)$  \_\_\_\_\_  $(-31) + (-11)$

(c)  $45 - (-11)$  \_\_\_\_\_  $57 + (-4)$

(d)  $(-25) - (-42)$  \_\_\_\_\_  $(-42) - (-25)$

Answer:

(a)  $(-3) + (-6) = -9$

$(-3) - (-6) = -3 + 6 = 3$

$-9 < 3$

Hence,  $(-3) + (-6) \overset{<}{\text{---}} (-3) - (-6)$

### Question 1:

Write opposite of the following:

- |                           |                  |
|---------------------------|------------------|
| (a) Increase in weight    | (b) 30 km north  |
| (c) 80 m East             | (d) Loss of ₹700 |
| (e) 100 m above sea level |                  |

### Answer 1:

- |                           |                    |
|---------------------------|--------------------|
| (a) Decrease in weight    | (b) 30 km south    |
| (c) 80 m West             | (d) Profit of ₹700 |
| (e) 100 m below sea level |                    |

### Question 2:

Represent the following numbers as integers with appropriate signs.

- (a) An aeroplane is flying at a height two thousand meters above the ground.
- (b) A submarine is moving at a depth eight hundred meters below the sea level.
- (c) A deposit of rupees two hundred.
- (d) Withdrawal of rupees seven hundred.

### Answer 2:

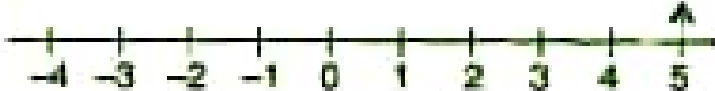
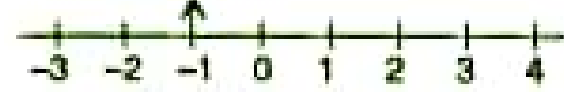
- (a) (+) 2000 meters
- (b) (-) 800 meters
- (c) (+) 200 Rupees
- (d) (-) 700 Rupees

### Question 3:

Represent the following numbers on number line:

- |        |         |
|--------|---------|
| (a) +5 | (b) -10 |
| (c) +8 | (d) -1  |
| (e) -6 |         |

### Answer 3:

- (a) 
- (b) 
- (c) 
- (d) 
- (e) 