EXERCISE

In questions 1 to 23, there are four options, out of which one is correct. Write the correct one.

1. 20% of 700 m is

(a) 560 m (b) 70 m (c) 210 m (d) 140 m

Solution: -

(d) 140m

20% of 700 m

The above condition can be written as = (20/100) × 700

= 14000/100

= 140 m

2. Gayatri's income ₹ 1,60,000 per year. She pays 15% of this as house rent and 10% of the remainder on her child's education. The money left with her is

(a) ₹136000 (b) ₹120000 (c) ₹122400 (d) ₹14000

Solution: -

(c) ₹122400

From the question it is given that,

Gayatri's income ₹ 1,60,000 per year

She pays 15% of this as house rent = 15% of ₹ 1,60,000

= (15/100) × 1,60,000

= ₹ 24000

10% of the remainder on her child's education = 10% of remaining amount of her income

Remaining amount of her income = ₹ 1,60,000 - ₹ 24000

= ₹ 136000

Total amount of her child's education = 10% of ₹ 136000

= (10/100) × 136000

= 1360000/100

= ₹ 13600

Then, money left with Gayatri = ₹ 1,60,000 – (₹ 24000 + ₹ 13600)

= ₹ 1, 60, 000 - ₹ 37,600

= ₹ 1,22,400

3. The ratio of Fatima's income to her savings is 4 : 1. The percentage of money saved by her is :

(a) 20% (b) 25% (c) 40% (d) 80%

Solution:-

(a) 20%

Let assume the ratio if Fatima's income to her savings be 4y : 1y.

Then, the percentage of money saved by her is = (her savings/(income + savings)) × 100

= (1y/4y + y) × 100

= 100/5

= 20

4. 0.07 is equal to

(a) 70% **(b) 7%** **(c) 0.7%** **(d) 0.07%**

Solution:-

(b) 7%

0.07 = 7/100

Percentage = (7/100) × 100

= 7%

5. In a scout camp, 40% of the scouts were from Gujarat State and 20% of these were from Ahmedabad. The percentage of scouts in the camp from Ahmedabad is:

(a) 25 **(b) 32.5** **(c) 8** **(d) 50**

Solution:-

(c) 8

From the question it is given that,

In a scout camp, 40% of the scouts were from Gujarat State

So, let us assume number of scouts in the camp be 100

Then, scouts from Gujarat = 40% of 100

= (40/100) × 100

= 4000/100

= 40

Now, 20% of scouts were from Ahmedabad = 20% of 40

= (20 /100) × 40

= 800/100

= 8

Therefore, the percentage of scouts in the camp from Ahmedabad is 8.

6. What percent of ₹ 4500 is ₹ 9000?

(a) 200 **(b) ½** **(c) 2** **(d) 50**

Solution:-

(a) 200
Let us assume percentage be Q,
Then, Q% of ₹ 4500 is ₹ 9000
(Q/100) × 4500 = ₹ 9000
(4500Q/100) = ₹ 9000
45Q = ₹ 9000
Q = ₹ 9000/45
Q = ₹ 200

7. 5.2 is equal to
(a) 52% **(b) 5.2%** **(c) 520%** **(d) 0.52%**
Solution:-
(c) 520%
5.2 = (52/10) × 100
= (5200/10)
= 520%

8. The ratio 3 : 8 is equal to
(a) 3.75% **(b) 37.5%** **(c) 0.375%** **(d) 267%**
Solution:-
(b) 37.5%
The ratio 3 : 8 = (3/8) × 100
= 300/8
= 37.5%

9. 225% is equal to
(a) 9 : 4 **(b) 4 : 9** **(c) 3 : 2** **(d) 2 : 3**
Solution:-
(a) 9 : 4
225% = (225/100)
Because, to remove the % we have to divide the given number by 100.
= 9/4

10. A bicycle is purchased for ₹ 1800 and is sold at a profit of 12%. Its selling price is
(a) ₹ 1584 **(b) ₹ 2016** **(c) ₹ 1788** **(d) ₹ 1812**
Solution:-
(b) ₹ 2016

From the question it is given that,
A bicycle is purchased for ₹ 1800
Bicycle is sold at a profit of 12%.
Its selling price is =?
We know that, Profit percent = (Profit/CP) × 100
12 = (Profit/₹ 1800) × 100
(12 × 1800)/100 = Profit
Profit = 12 × 18
Profit = ₹ 216
Then, Profit = SP – CP
216 = SP – 1800
SP = 216 + 1800
SP = ₹ 2016

11. A cricket bat was purchased for ₹ 800 and was sold for ₹ 1600. Then profit earned is
(a) 100% **(b) 64%** **(c) 50%** **(d) 60%**
Solution:-
(a) 100%
From the question it is given that,
Cost price of bat (CP) = ₹ 800
Selling price of bat (SP) = ₹ 1600
Then, Profit = SP – CP
= 1600 – 800
= ₹ 800
We know that, Profit percent = (Profit/CP) × 100
= (800/800) × 100
= 100%

12. A farmer bought a buffalo for ₹ 44000 and a cow for ₹ 18000. He sold the buffalo at a loss of 5% but made a profit of 10% on the cow. The net result of the transaction is
(a) loss of ₹ 200 **(b) profit of ₹ 400**
(c) loss of ₹ 400 **(d) profit of ₹ 200**
Solution:-
(c) loss of ₹ 400
From the question it is given that,

Cost price of cow = ₹ 18000
Profit percent on cow = 10%
We know that, Profit percent = (Profit/CP) × 100
10 = (Profit/₹ 18000) × 100
(10 × 18000)/100 = Profit
Profit = 10 × 180
Profit = ₹ 1800
Then, Profit = SP – CP
1800 = SP – 18000
SP = 1800 + 18000
SP of cow = ₹ 19800 Cost
price of buffalo = ₹ 44000
He sold the buffalo at a loss of 5%
We know that, Loss percent = (loss/CP) × 100
5 = (loss/44000) × 100
(5 × 44000)/100 = loss
Loss = 5 × 440
Loss = ₹ 2200

Loss = CP – SP
₹2200 = ₹44000 – SP
SP = 44000 – 2200
SP of buffalo = ₹ 41,800

Now,
Total cost price of both buffalo and cow = ₹ 44000 + ₹ 18000
= ₹ 62000
Total selling price of both buffalo and cow = ₹ 41800 + ₹ 19800
= ₹ 61,600
Selling price of both buffalo and cow is less when compare to cost price,
So, Loss = CP – SP
= ₹ 62000 - ₹ 61600
Loss = ₹ 400

13. If Mohan's income is 25% more than Raman's income, then Raman's income is less than Mohan's income by
(a) 25% **(b) 80%** **(c) 20%** **(d) 75%**
Solution:-

(c) 20%

Let us assume Mohan's income be 'P' and Raman's income be 'Q'

From the question it is given that,

Mohan's income is 25% more than Raman's income i.e. x = y + 25% of y

$$X = y + (25/100)\ y$$
$$X = y\ (1 + (25/100))$$
$$X = y\ ((100 + 25)/100)$$
$$X = y(125/100)$$

Then, the difference between both the income is = (125/100)y – (25/100)y

So,

Raman's income as compared to Mohan's income,

$$= (\text{difference})/\ (\text{Mohan's income}) \times 100$$
$$= ((25y/100)/(125y/100)) \times 100$$
$$= (25/125) \times 100$$
$$= 20\%$$

14. The interest on ₹ 30000 for 3 years at the rate of 15% per annum is

(a) ₹ 4500 (b) ₹ 9000 (c) ₹ 18000 (d) ₹ 13500

Solution:-

(d) ₹ 13500

From the question it is given that,

Principal= ₹ 30000

Time = 3 Years

Rate = 15%

Then, we know the formula of Simple interest I = (P × R × T)/100

$$I = (30000 \times (15) \times 3)/100$$
$$I = (30000 \times 15 \times 3)/100$$
$$I = ₹\ 13500$$

15. Amount received on ₹ 3000 for 2 years at the rate of 11% per annum is

(a) ₹ 2340 (b) ₹ 3660 (c) ₹ 4320 (d) ₹ 3330

Solution:-

(b) ₹ 3660

From the question it is given that,

Principal= ₹ 3000

Time = 2 Years

Rate = 11%

Then, we know the formula of Simple interest I = (P × R × T)/100

I= (3000 × (11) × 2)/100

I = (3000 × 11 × 2)/100

I = ₹ 660

Amount = P + I

= 3000 + 660

= ₹ 3660

16. Interest on ₹ 12000 for 1 month at the rate of 10 % per annum is

(a) ₹ 1200 (b) ₹ 600 (c) ₹ 100 (d) ₹ 12100

Solution:-

(c) ₹ 100

From the question it is given that,

Principal= ₹ 12000

Time = 1 month = 1/12

Rate = 10%

Then, we know the formula of Simple interest I = (P × R × T)/100

I= (12000 × (10) × (1/12))/100

I = ₹ 100

17. Rajini and Mohini deposited ₹ 3000 and ₹ 4000 in a company at the rate of 10% per annum for 3 years and 2½ years respectively. The difference of the amounts received by them will be

(a) ₹ 100 (b) ₹ 1000

(c) ₹ 900 (d) ₹ 1100

Solution:-

(d) ₹ 1100

From the question it is given that,

Money deposited by Rajini = ₹ 3000

Time = 3 years

Rate = 10%

Then, we know the formula of Simple interest I = (P × R × T)/100

I= (3000× (10) × 3)/100

I = ₹ 900

Amount = P + I

= 3000 + 900

= ₹ 3900

Now,
Money deposited by Mohini = ₹ 4000
Time = 2½ = 5/2
Rate = 10%
Then, we know the formula of Simple interest I = (P × R × T)/100
I= (4000× (10) × (5/2))/100
I = ₹ 1000

Amount = P + I
= 4000 + 1000
= ₹ 5000

The difference of the amounts received by them will be = 5000 – 3900
= ₹1100

18. If 90% of x is 315 km, then the value of x is
(a) 325 km (b) 350 km (c) 405 km (d) 340 km
Solution:-
(b) 350 km
From the question it is given that,
90% of x is 315 km, it can be written as, (90/100) × x = 315
x = (315 × 100)/90
x = 31500/90
x = 350 km

19. On selling an article for ₹ 329, a dealer lost 6%. The cost price of the article is
(a) ₹ 310.37 (b) ₹ 348.74 (c) ₹ 335 (d) ₹ 350
Solution:-
(d) ₹ 350
From the question it is given that,
Selling price of the article = ₹ 329
Loss percent = 6%
We know that, Loss percent = (loss/CP) × 100
6 = ((CP – SP)/CP) × 100
(6/100)CP = CP –SP
CP – (6/100)CP = 329
(94/100)CP = 329
CP = (329 × 100)/94

CP = ₹ 350

20. (25% of 50% of 100%)/(25 × 50) is equal to

(a) 1.1% **(b) 0.1%** **(c) 0.01%** **(d) 1%**

Solution:-

(c) 0.01%

= [(25/100) × (50/100) × (100/100)]/ (25 × 50)

= [¼ × ½ × 1]/(1250)

= [1/8] × (1/1250)

= 1/10000

= 0.0001 × 100

= 0.01%

21. The sum which will earn a simple interest of ₹ 126 in 2 years at 14% per annum is

(a) ₹ 394 **(b) ₹ 395** **(c) ₹ 450** **(d) ₹ 540**

Solution:-

(c) ₹ 450

From the question it is given that,

SI = ₹ 126

Time = 2 years

Rate = 14%

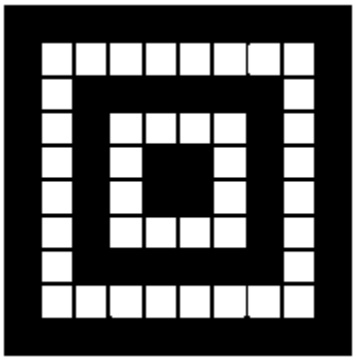
Then, we know the formula of Simple interest I = (P × R × T)/100

126 = (P × 14 × 2)/100

P = 12600/(14 × 2)

P = ₹ 450

22. The per cent that represents the unshaded region in the figure

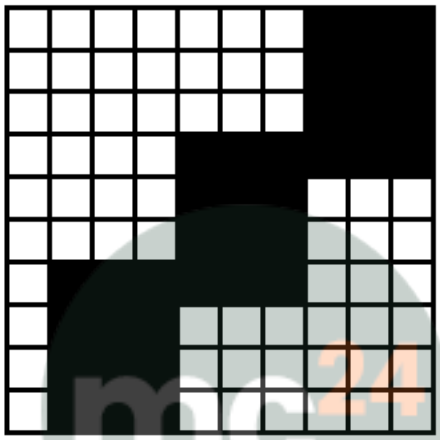


(a) 75% **(b) 50%** **(c) 40%** **(d) 60%**

Solution:-

(c) 40%
From the figure,
Total number of parts in the given figure = 10 × 10 = 100
Out of 100 parts 60 parts are shaded.
So, unshaded parts = 100 – 60 = 40 parts
Then percentage of unshaded parts = (40/100) × 100
= 0.4 × 100
= 40%

23. The per cent that represents the shaded region in the figure is



(a) 36% **(b) 64%** **(c) 27%** **(d) 48%**

Solution:-
(a) 36%
From the figure,
Total number of parts in the given figure = 10 × 10 = 100
Out of 100 parts 36 parts are shaded.
Then percentage of shaded parts = (36/100) × 100
= 0.36 × 100
= 36%

In each of the questions 24 to 59, fill in the blanks to make the statements true.
24. 2 : 3 = _____%
Solution:-
2: 3 = $66\frac{2}{3}$ %
= (2/3) × 100
= $66\frac{2}{3}$ %

25. 18¾% = _____: _____
Solution:-
18¾% = 3 : 16
18¾% = 75/4 %
= (75/4) × (1/100)
= 3: 16

26. 30% of ₹ 360 = _____.
Solution:-
30% of ₹ 360 = ₹ 108.
It can be written as = (30/100) × 360
= 10800/100
= ₹ 108

27. 120 % of 50 km = _____.
Solution:-
120 % of 50 km = 60 km.
It can be written as = (120/100) × 50
= 6000/100
= 60 km

28. 2.5 = _____%
Solution:-
2.5 = 250 %
2.5 = 2.5 × 100
= 250%

29. (8/5) = _____ %
Solution:-
(8/5) = 160 %.
(8/5) is written in percentage as = (8/5) × 100
= 8 × 20
= 160 %

30. A _____with its denominator 100 is called a percent.
Solution:-
A fraction with its denominator 100 is called a percent.

31. 15 kg is _____% of 50 kg.

Solution:-

15 kg is 30 % of 50 kg.

Let us assume the percentage be P.

So, P% of 50 kg =15 kg

$(P/100) \times 50 = 15$

$P = (15 \times 100)/50$

$P = 1500/50$

$P = 150/5$

$P = 30$

32. Weight of Nikhil increased from 60 kg to 66 kg. Then, the increase in weight is _____%.

Solution:-

Weight of Nikhil increased from 60 kg to 66 kg. Then, the increase in weight is 10 %.

From the question it is given that, Weight of Nikhil increased from 60 kg to 66 kg.

So, weight increase = 66 – 60

= 6 kg

Then, percentage increase = (Weight increase/Initial weight) × 100%

= (6/60) × 100

= 600/60

= 60/6

= 10%

33. In a class of 50 students, 8 % were absent on one day. The number of students present on that day was _____.

Solution:-

In a class of 50 students, 8 % were absent on one day. The number of students present on that day was 46.

From the question it is given that, number of students in the class = 50

Percentage of students were absent on one day = 8%

Then, percentage of students were present on one day = 100% - 8%

= 92%

So, 92% of 50

= (92/100) × 50

= 4600/100

= 46 students

34. Savitri obtained 440 marks out of 500 in an examination. She secured _____% marks in the examination.

Solution:-

Savitri obtained 440 marks out of 500 in an examination. She secured 88% marks in the examination.

From the question it is give that, Savitri obtained 440 marks out of 500 in an examination,

Then, percentage of marks obtained by Savitri = (440/500) × 100

= 0.88 × 100

= 88%

35. Out of a total deposit of ₹ 1500 in her bank account, Abida withdrew 40% of the deposit. Now the balance in her account is _____.

Solution:-

Out of a total deposit of ₹ 1500 in her bank account, Abida withdrew 40% of the deposit. Now the balance in her account is ₹ 900.

From the question,

Total deposit in Abida's account = ₹ 1500

Percentage of amount Abida withdrew = 40%

Then, amount withdrew = 40% of ₹ 1500

= (40/100) × 1500

= 60000/100

= ₹ 600

Then, remaining amount in the account = ₹ 1500 – ₹ 600

= ₹ 900

36. _____is 50% more than 60.

Solution:-

90 is 50% more than 60.

Let us assume the number be Q.

From the question, Q is 50% more than 60

So, Q = 60 + (50/100) × 60

= 60 + (3000/100)

= 60 + 30

= 90

37. John sells a bat for ₹ 75 and suffers a loss of ₹ 8. The cost price of the bat

is_____.

Solution:-

John sells a bat for ₹ 75 and suffers a loss of ₹ 8. The cost price of the bat is ₹ 83.

From the question it is given that, Selling price of bat ₹ 75

Loss = ₹ 8

We know that, Cost Price (CP) = SP + loss

= ₹ 75 + ₹ 8

= ₹ 83

38. If the price of sugar is decreased by 20%, then the new price of 3kg sugar originally costing ₹ 120 will be _____

Solution:-

If the price of sugar is decreased by 20%, then the new price of 3kg sugar originally costing ₹ 120 will be ₹ 96

From the question it is given that, price of 3kg sugar originally costing ₹ 120

The price of the sugar is decreased by 20%

Then, the new price of sugar = 120 – 20% of original price

= 120 – (20/100) × 120

= 120 – (2400/100)

= 120 – 24

= ₹ 96

39. Mohini bought a cow for ₹ 9000 and sold it at a loss of ₹ 900. The selling price of the cow is _____.

Solution:-

Mohini bought a cow for ₹ 9000 and sold it at a loss of ₹ 900. The selling price of the cow is ₹ 8100

From the question it is given that,

Cost price of cow (CP) = ₹ 9000

Loss = ₹ 900

We know that, Selling price (SP) = CP – loss

= 9000 – 900

= ₹ 8100

40. Devangi buys a chair for ₹ 700 and sells it for ₹ 750. She earns a profit of _____ % in the transaction.

Solution:-

Devangi buys a chair for ₹ 700 and sells it for ₹ 750. She earns a profit of $7\frac{1}{7}$ % in the transaction.

From the question it is given that, cost price of chair = ₹ 700

As we know that, Profit = SP – CP

= 750 – 700

= ₹ 50

Then, Profit percentage = (profit/CP) × 100%

= (50/700) × 100

= $7\frac{1}{7}$ %

41. Sonal bought a bed sheet for ₹ 400 and sold it for ₹ 440. Her _____% is _____.

Solution:-

Sonal bought a bed sheet for ₹ 400 and sold it for ₹ 440. Her Profit% is 10.

From the question, it is given that, cost price of bed = ₹ 400

Selling price of bed = ₹ 440

SP is more than CP so, Profit = SP – CP

= 440 – 400

= ₹ 40

We know that, Profit percentage = (Profit/CP) × 100

= (40/400) × 100

= 10%

42. Nasim bought a pen for ₹ 60 and sold it for ₹ 54. His _____% is _____.

Solution:-

Nasim bought a pen for ₹ 60 and sold it for ₹ 54. His loss% is 10.

From the question, it is given that, cost price of pen = ₹ 60

Selling price of pen = ₹ 54

CP is more than SP so, Loss = CP – SP

= 60 – 54

= ₹ 6

We know that, loss percentage = (loss/CP) × 100

= (6/60) × 100

= 10%

43. Aahuti purchased a house for ₹ 50,59,700 and spent ₹ 40300 on its repairs. To

make a profit of 5%, she should sell the house for ₹ _____.

Solution:-

Aahuti purchased a house for ₹ 50,59,700 and spent ₹ 40300 on its repairs. To make a profit of 5%, she should sell the house for ₹ 5355000.

From the question it is give that,

Cost price of house purchased by Aahuti = ₹ 50,59,700

Amount spent to repair the house = ₹ 40,300

Then, total cost price of house = ₹ 50,59,700 + 40,300

= ₹ 5100000

Profit % = (profit/CP) × 100

5 = ((SP - CP)/CP) × 100

5 = ((SP - 5100000)/5100000) × 100

(5 × 5100000)/100 = SP – 5100000

SP = ₹ 5355000

44. If 20 lemons are bought for ₹ 10 and sold at 5 for three rupees, then _____in the transaction is _____%.

Solution:-

If 20 lemons are bought for ₹ 10 and sold at 5 for three rupees, then profit in the transaction is 20%.

From the question, it is given that, cost price of 20 lemons = ₹ 10

Selling price of 5 lemons = ₹ 3

So, selling price of 1 lemon = ₹ 3/5

Then, selling price of 20 lemons = ₹ (3/5) × 20

= 12

SP is more than CP so, Profit = SP – CP

= 12 – 10

= ₹ 2

We know that, Profit percentage = (Profit/CP) × 100

= (2/10) × 100

= 20%

45. Narain bought 120 oranges at ₹ 4 each. He sold 60 % of the oranges at ₹ 5 each and the remaining at ₹ 3.50 each. His _____is _____%.

Solution:-

Narain bought 120 oranges at ₹ 4 each. He sold 60 % of the oranges at ₹ 5 each and the remaining at ₹ 3.50 each. His profit is 10%.

From the question, it is given that, cost price of one orange = ₹ 4
cost price of 120 oranges = ₹ 4 × 120 = ₹ 480
So, selling price of 60% of oranges = ₹ 5 per each
60% of 120 oranges = (60/100) × 120
= 7200/100
= 72 oranges
Selling price of 72 oranges = 72 × 5 = ₹ 360
SP of remaining oranges = (120 - 72) × 3.50
= 48 × 3.50
= ₹ 168
Therefore total selling price of 120 oranges = ₹ 360 + ₹ 168
= ₹ 528
SP is more than CP so, Profit = SP – CP
= 528 – 480
= ₹ 48
We know that, Profit percentage = (Profit/CP) × 100
= (48/480) × 100
= 10%

46. A fruit seller purchased 20 kg of apples at ₹ 50 per kg. Out of these, 5% of the apples were found to be rotten. If he sells the remaining apples at ₹ 60 per kg, then his _____is _____%.

Solution:-

A fruit seller purchased 20 kg of apples at ₹ 50 per kg. Out of these, 5% of the apples were found to be rotten. If he sells the remaining apples at ₹ 60 per kg, then his profit is 14 %.

From the question it is given that, A fruit seller purchased 20 kg of apples at ₹ 50 per kg
In that 20 kg of apples 5% were rotten, so good apples = 20 – 5% of 20kg
= 20 – (5/100) × 20
= 20 – (100/100)
= 20 – 1
= 19 kg

So, 19 kg apples were sold at ₹ 60 per kg
Then, total Selling price of apples = 19 × 60
= ₹ 1140
Given cost price of 20 kg of apples = 20 × 50
= ₹ 1000

SP is more than CP so, Profit = SP – CP
= 1140 – 1000
= ₹ 140
We know that, Profit percentage = (Profit/CP) × 100
= (140/1000) × 100
= 14%

47. Interest on ₹ 3000 at 10% per annum for a period of 3 years is _____.
Solution:-
Interest on ₹ 3000 at 10% per annum for a period of 3 years is ₹ 900.
From the question it is given that,
Principal= ₹ 3000
Time = 3 years
Rate = 10%
Then, we know the formula of Simple interest I = (P × R × T)/100
I= (3000 × (10) × 3)/100
I = ₹ 900

48. Amount obtained by depositing ₹ 20,000 at 8 % per annum for six months is _____.
Solution:-
Amount obtained by depositing ₹ 20,000 at 8 % per annum for six months is ₹ 20800
From the question it is given that,
Principal= ₹ 20000
Time = 6 months = 6/12 = ½
Rate = 8%
Then, we know the formula of Simple interest I = (P × R × T)/100
I= (20000 × 8 × ½) /100
I = ₹ 800
Amount received = Principal + Interest
= 20000 + 800
= ₹ 20800

49. Interest on ₹ 12500 at 18% per annum for a period of 2 years and 4 months is _____.
Solution:-
Interest on ₹ 12500 at 18% per annum for a period of 2 years and 4 months is ₹ 5250.

From the question it is given that,
Principal= ₹ 12500
Time = 2 years 4 months = (2 + (4/12))
= (2 + (1/3))
= 7/3 year
Rate = 18%
Then, we know the formula of Simple interest I = (P × R × T)/100
I= (12500 × 18 × (7/3)) /100
I = ₹ 5250

50. 25 ml is _____percent of 5 litres.
Solution:-
25 ml is 0.5 percent of 5 litres
Let us assume 25 ml be Q % of 5 liters.
So, 25 ml = Q % of 5l
25 = (Q/100) × 5 × 1000
Q = (25 × 100)/(5 × 1000)
Q = 0.5%

51. If A is increased by 20%, it equals B. If B is decreased by 50%, it equals C. Then _____% of A is equal to C.
Solution:-
If A is increased by 20%, it equals B. If B is decreased by 50%, it equals C. Then 60 % of A is equal to C.
From the question it is given that, A is increased by 20%, it equals B = A + (20/100) × A
B is decreased by 50%, it equals C = B – (50/100) × B
Then,
A (1 + (1/5)) = B
(6/5) A = B … [equation i]
Now,
B (1 – (1/2)) = C
½B = C
B = 2C … [equation ii]
Substitute equation (ii) in equation (i)
(6/5)A = 2C
C = (6/10) A

C = ((6 × 10)/(10 × 10))A
C = (60/100) × A
C = 60% of A

52. Interest = (P × R × T)/100, where
T is _____
R % is _____and
P is _____.
Solution:-
Interest = (P × R × T)/100, where
T is Time period
R % is Rate of Interest and
P is Principal.

53. The difference of interest for 2 years and 3 years on a sum of ₹ 2100 at 8% per annum is _____.
Solution:-
The difference of interest for 2 years and 3 years on a sum of ₹ 2100 at 8% per annum is ₹ 168.
From the question it is given that,
P = ₹ 2100
Time = 2 years
Rate = 8%
Then, we know the formula of Simple interest I = (P × R × T)/100
I = (2100 × 2 × 8)/100
I = 33600/100
I = ₹ 336
Then,
Time = 3 years
I = (P × R × T)/100
I = (2100 × 3× 8)/100
I = 50400/100
I = ₹ 504
The difference of interest for 2 years and 3 years = 3 years – 2 years
= ₹ 504 - ₹ 336
= ₹ 168

54. To convert a fraction into a percent, we _____it by 100.
Solution:-
To convert a fraction into a percent, we multiply it by 100.

55. To convert a decimal into a percent, we shift the decimal point two places to the _____.
Solution:-
To convert a decimal into a percent, we shift the decimal point two places to the right.

56. The _____of interest on a sum of ₹ 2000 at the rate of 6% per annum for 1½ years and 2 years is ₹ 420.
Solution:-
The sum of interest on a sum of ₹ 2000 at the rate of 6% per annum for 1½ years and 2 years is ₹ 420.
From the question it is given that, P = 2000, R = 6% and T = 1½ years
As we know that,

$I = (P \times R \times T)/100$
$I = (2000 \times 6 \times 3)/ (100 \times 2)$
$I = ₹ 180$

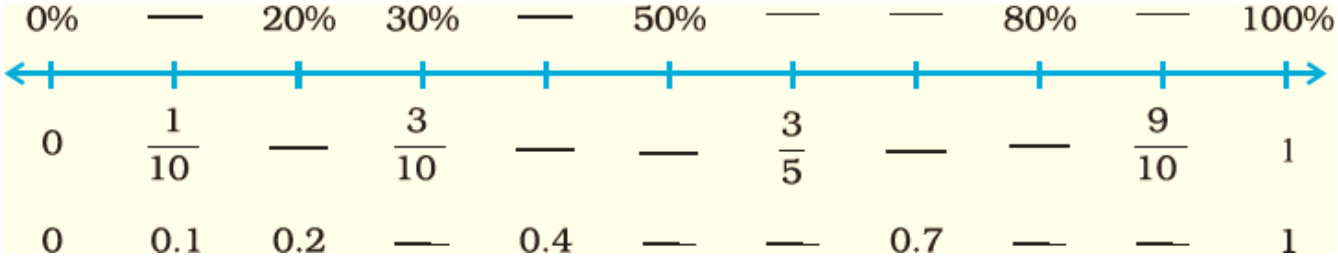
For 2 years,

$I = (P \times R \times T)/100$
$I = (2000 \times 6 \times 2)/ (100)$
$I = ₹ 240$

Then, sum = 180 + 240 = ₹ 420

57. When converted into percentage, the value of 6.5 is _____than 100%.
Solution:-
When converted into percentage, the value of 6.5 is more than 100%.
Given, 6.5
= 6.5 × 100
= 650%

In questions 58 and 59, copy each number line. Fill in the blanks so that each mark on the number line is labelled with a percent, a fraction and a decimal. Write all fractions in lowest terms.
58.

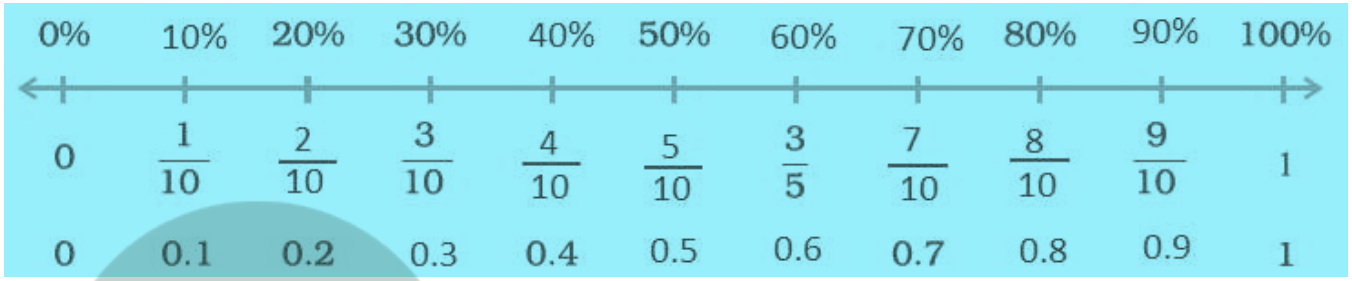


Solution:-

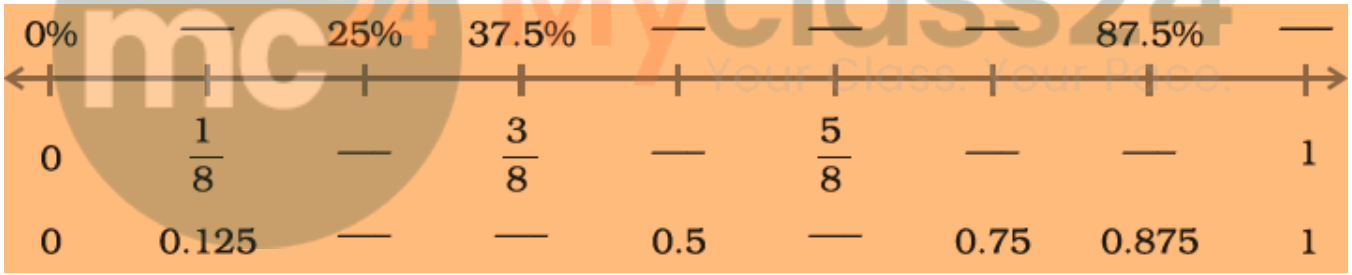
We know that, Percentage = Fraction × 100

Then, Fraction = Percentage /100

Decimal = Percentage/ 100



59.

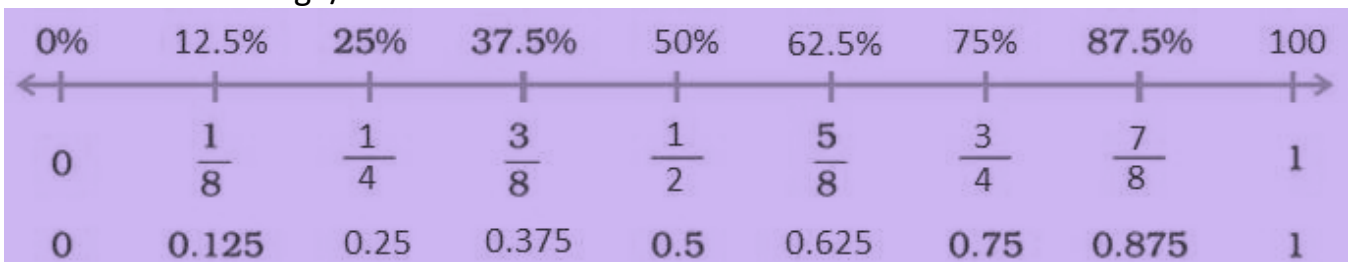


Solution:-

We know that, Percentage = Fraction × 100

Then, Fraction = Percentage /100

Decimal = Percentage/ 100



In questions 60 to 79, state whether the statements are True or False.

60. (2/3) = $66\frac{2}{3}$

Solution:-

True

= (2/3) × 100%

= 200/3

= $66\frac{2}{3}$

61. When an improper fraction is converted into percentage then the answer can also be less than 100.

Solution:-

False

For example consider an improper fraction = 9/4

So, percentage of improper fraction = (9/4) × 100

= 225%

62. 8 hours is 50% of 4 days.

Solution:-

False

Let us assume 8 hours be Q% of 4 days

So, 8 = (Q/100) × 4 × 24

Q = 25/3

Q = $8\frac{1}{3}$

63. The interest on ₹ 350 at 5% per annum for 73 days is ₹ 35.

Solution:-

False

From the question it is given that, P = ₹ 350, R = 5%, T = 73 days = 73/365

As we know that,

I = (P × R × T)/100

I = (350 × 5 × 73)/ (100 × 365)

I = ₹ 3.5

64. The simple interest on a sum of ₹ P for T years at R% per annum is given by the formula: Simple Interest = ((P × R × T)/100)

Solution:-

True

65. 75% = (4/3)
Solution:-
False
Because, 75 % = 75/100
= ¾

66. 12% of 120 is 100.
Solution:-
False
= (12/100) × 120
= 1440/100
= 14.4

67. If Ankita obtains 336 marks out of 600, then percentage of marks obtained by her is 33.6.
Solution:-
False
From the question it is given that,
Ankita obtains 336 marks out of 600
So, percentage of marks = (336/600) × 100
= 0.56 × 100
= 56%

68. 0.018 is equivalent to 8%.
Solution:-
False
0.018 × 100 = 1.8%

69. 50% of ₹ 50 is ₹ 25.
Solution:-
True.
= (50/100) × 50
= 0.5 × 50
= ₹ 25

70. 250 cm is 4% of 1 km.
Solution:-

False

250 cm = 250/100

= 2.5 m

We know that, 1 km = 1000m

Then, 4 % of 1 km = (4/100) × 1000

= 40 m