

Exercise 7.4

1. Find the buying price of each of the following when 5% S.T. is added on the purchase of

(i) a towel of ₹ 50

(ii) 5 kg of flour at ₹ 15 per kg.

Solution:

(i) It is given that

S.T. = 5%

Cost of towel = ₹ 50

We know that

Total S.T. = $(50 \times 5) / 100$

= ₹ 2.50

So the buying price = $50 + 2.50 = ₹ 52.50$

(ii) We know that

C.P. of 5 kg of flour at the rate of ₹ 15 per kg = 15×5

= ₹ 75

Rate of S.T. = 5%

Here

Total tax = $(75 \times 5) / 100$

So we get

= $375 / 100$

= ₹ 3.75

So the total price of the flour = $75 + 3.75 = ₹ 8.75$

2. If 8% of VAT is included in the prices, find the original price of

(i) a TV bought for ₹ 13500

(ii) a shampoo bottle bought for ₹ 180.

Solution:

(i) It is given that

Total price of TV including VAT = ₹ 13500

Rate of VAT = 8%

We know that

Original price of TV = $(13500 \times 100) / (100 + 8)$

By further calculation

= $(13500 \times 100) / 108$

= ₹ 12500

(ii) It is given that

Total cost of shampoo bottle including VAT = ₹ 180

Rate of VAT = 8%

We know that

Original price of shampoo = $(180 \times 100) / (100 + 8)$

By further calculation

= $(180 \times 100) / 108$

So we get

= $500/3$

= ₹ 166.67

3. Utkarsh bought an AC for ₹ 34992 including a VAT of 8%. Find the price of AC before VAT was added.

Solution:

It is given that

Cost of AC including VAT = ₹ 34992

Rate of VAT charged = 8%

We know that

Original price of AC = $(34992 \times 100) / (100 + 8)$

By further calculation

= $(34992 \times 100) / 108$

= ₹ 32400

4. Gaurav bought a shirt for ₹1296 including VAT. If the original price of the shirt is ₹ 1200, find the rate of VAT.

Solution:

It is given that

Cost of shirt including VAT = ₹ 1296

Original price of shirt = ₹ 1200

We know that

Amount of VAT = $1296 - 1200 = ₹ 96$

Here

Rate of VAT = $(\text{VAT} \times 100) / \text{C.P.}$

Substituting the values

= $(96 \times 100) / 1200$

= 8 %

5. Anjana buys a purse for ₹ 523.80 including 8% VAT. Find the new selling price of the purse if VAT increases to 10%.

Solution:

It is given that

Total C.P. of purse including VAT = ₹ 523.80

Rate of VAT = 8%

We know that

Actual cost of the purse = $(523.80 \times 100) / (100 + 8)$

By further calculation

= $(523.80 \times 100) / 108$

= ₹ 485

Here

New rate of VAT = 10%

Amount of VAT = $485 \times 10/100$

So we get

= $4850/100$

= ₹ 48.50

So the total cost of the purse = $485 + 48.50 = ₹ 535.50$

6. A wall hanging is marked for ₹ 4800. The shopkeeper offers 10% discount on it. If VAT is received 8% from the customer, find the amount paid by the customer to purchase the wall hanging.

Solution:

It is given that

Marked price of wall hanging = ₹ 4800

Discount offered = 10%

We know that

$$\text{Net sale price} = [4800 \times (100 - 10)/100]$$

By further calculation

$$= (4800 \times 90)/100$$

$$= ₹ 4320$$

Here

Rate of VAT charged = 8%

$$\text{So the sale price including VAT} = [4320 \times (100 + 8)/100]$$

By further calculation

$$= (4320 \times 108)/100$$

$$= 466560/100$$

$$= ₹ 4665.60$$

7. Amit goes to a shop to buy a washing machine. The marked price of the washing machine is ₹ 10900 excluding 9% VAT. Amit bargains with the shopkeeper and convinces him for ₹ 10900 including VAT as the final cost of the washing machine. Find the amount reduced by the shopkeeper.

Solution:

It is given that

$$\text{M.P. of washing machine} = ₹ 10900$$

Rate of VAT = 9%

Consider ₹ x as the reduced price of machine

We know that

$$\text{VAT at the rate of 9\%} = x \times 9/100 = ₹ 9x/100$$

So the amount paid = $x + \frac{9x}{100} = \frac{109x}{100}$

By equating the values

$$\frac{109x}{100} = 10900$$

By further calculation

$$x = \frac{(10900 \times 100)}{109}$$

$$x = 10000$$

Amount reduced by the shopkeeper = $10900 - 10000$

$$= ₹ 900$$

Therefore, the amount reduced by the shopkeeper is ₹ 900.