PROFIT, LOSS AND DISCOUNT
PERIOD 6

SUBJECT : MATHEMATICS
CHAPTER NUMBER: 8
CHAPTER NAME : PROFIT, LOSS AND DISCOUNT

Learning outcome

The children will be able calculate tax and its percentage

Previous knowledge

Question 1.
An article is marked for Rs. 1,300 and is sold for Rs. 1,144 ; find the discount percent.

Question 2.
A wrist-watch is available at a discount of 9%. If the list-price of the watch is Rs. 1,400 ; find the discount given and the selling price of the watch.

Exercise- 8(E)

Question 1.

Rajat purchases a wrist-watch costing Rs. 540. The rate of Sales Tax is 8%. Find the total amount paid by Rajat for the watch.

Solution:

Cost of watch = ₹540

Rate of Sales Tax = 8%

$\therefore$ Amount of Sales Tax = $₹540 \times \dfrac{8}{100}$

$= ₹\dfrac{4320}{100} = ₹43.20$

Total Amount of Watch = ₹ 540 + ₹ 43.20 = ₹ 583.20

Exercise- 8(E)

Question 2.

Ramesh paid ₹ 345.60 as Sales Tax on a purchase of ₹ 3,840. Find the rate of Sales Tax.

Solution:

On ₹3840, sales-tax is = ₹345.60

$$\therefore \text{ Percent of Sale Tax} = \frac{345.60 \times 100}{3840}$$

$$= \frac{34560 \times 100}{100 \times 3840} = 9\%$$

Exercise- 8(E)

Question 3.
The price of a washing machine, inclusive of sales tax is ₹ 13,530/-. If the Sales Tax is 10%, find its basic (cost) price.

Solution:

Selling price of washing machine = ₹13,530.

Rate of Sales Tax = 10%

$$\therefore \ \text{Cost price} = \frac{\text{Selling Price} \times 100}{(100 + \text{Rate of Sales Tax})}$$

$$= \frac{13530 \times 100}{100 + 10}$$

$$= \frac{13530 \times 100}{110} = ₹12,300$$

Exercise- 8(E)

Question 5.

The price of a T.V. set inclusive of sales tax of 9% is ₹ 13,407. Find its marked price. If Sales Tax is increased to 13%, how much more does the customer has to pay for the T.V. ?

Solution:

Sale price of T.V. set = ₹13,407

Rate of sales tax = 9%

Let marked price of T.V. = x

Then sale price

$$= x + \frac{x \times 9}{100} = \frac{100x + 9x}{100} = \frac{109x}{100}$$

$$\therefore \quad \frac{109x}{100} = ₹13,407$$

$$x = \frac{13407 \times 100}{109} = ₹12,300$$

$\therefore$ Marked Price = ₹12,300

In second case, Sales Tax = 13%

$\therefore$ Amount of sales tax = ₹12300 $\times \dfrac{13}{100}$

$\qquad = ₹1,599$

$\therefore$ Sale price = ₹12,300 + 1,599 = ₹13,899

Difference between the two sales price

$= ₹13,899 - ₹13,407 = ₹492$

Exercise- 8(E)

Question 7.

A bicycle is available for ₹ 1,664 including Sales Tax. If the list price of the bicycle is ₹ 1,600, find :

(i) the rate of Sales Tax

(ii) the price a customer will pay for the bicycle if the Sales Tax is increased by 6%.

Solution:

Sale price of bicycle = ₹1,664.

List price = ₹1,600

∴ Amount of Sales Tax = ₹1,664 − 1,600

$$= ₹64.$$

∴ Rate of Sales Tax = $\dfrac{64 \times 100}{1600}$ = **4%**

In second case, rate of sales-tax = 4 + 6 = 10%

∴ Amount of Sales Tax = $\dfrac{1600 \times 10}{100}$ = ₹160

∴ Sales price = ₹1,600 + ₹160 = ₹1,760

Home Assignment

Exercise 8(E) - 1 to 5

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