Solutions For Quiz Questions

PROFIT AND LOSS

1) Cost price = $4500 , Selling price = $5200, find the profit percentage?

Given:

Cost price = $4500

Selling price = $5200

To Find: The Profit Percentage

Solution: Profit = 5200 – 4500 = 700

Profit percentage = [profit / cost price] x 100

Profit percentage = [700 / 4500] x 100 = 15.55%

Profit percentage = 15.55%

2)A person bought an article for $250.For how much should he sell it so that, his profit percentage is 10%?

Given: Buying price (Cost price)of the article = $250.

Profit percentage = 10%

To Find: Selling Price of an article.

Solution: Selling price = C.P[100 + profit percentage] /100

S.P = 250[100 + 10] / 100 = 25 x 11 = $275

The article must be sold at the rate of $275 to get 10% profit.

3)If by selling an article for $390 a shopkeeper gains 20%, find his cost price?

Given: Selling price = $390 and Profit % = 20%
To find : We have to find the cost price
Solution: C..P = 100 /[100 + profit percentage] x S.P
= 100 x 390/[100 + 20]
=39000/120 = 325
Cost price of the product = $325

4)A retailer buys 40 dolls for 10cents each. 5 are damaged and unsalable but he sells the rest for 15cents each. What is the profit or loss percentage?

Given: Number of dolls = 40
Cost of a doll = 10 cents
To Find: The Profit or loss percentage.
Solution: Cost of 40 dolls = 40 x 10 = 400 cents = $4.
Number of unsalable dolls = 5
Number of salable dolls= 40 – 4 = 35.

Selling price of each doll = 15 cents
Selling price of 35 dolls = 35 x 15 = 525 cents = $5.25
Profit = 5.25 – 4 = $1.25
Profit percentage = [profit / cost price] x 100
= [1.25 / 4] x 100 = 31.25%
Profit percentage = 31.25%

5)Ray put $1,000 into a savings account. The interest on the account is 3.5%. He wants to put the money away for 18 months . How much will Ray have at the end of that time period?
Given: Principal amount = $1000, Rate of Interest = 3.5% and time period = 18 month
To Find: The total value of investment.
Solution: Using the simple interest formula : I = p x r x t
I = $1,000 x 3.5% x 18
I = $1,000 x .035 x 18
I = $1,000 x .035 x 1.5(divide the number of months by 12)
I = $52.50
Adding the interest back on to the principle, Ray now has $1,052.50.

6) The list price of a watch is Rs.950. A discount of 15% on sales is announced. What is the amount of discount on it and its selling price?

Given: Marked Price of watch = $950, Discount= 15% and time period = 18 month

To Find: Discount amount and Selling Price

Solution:

Amount of discount = 15% of 950

= 15/100 x 950

= Rs.142.5

∴ Selling Price of the watch = Marked Price – Discount

= 950 – 142.5

=807.5

7) A shoe store uses a 40% markup on cost. Find the cost of the shoe that sells for $63.

Given: % of markup shoes = 40%

Selling price of shoes = $63

To find: cost of the shoes.

Let the cost of the shoes be x.
Mark up ratio = mark up / cost price.
Mark up = selling price – cost price
40/100 = (63 – x) / x
0.4x = 63 – x
1.4x = 63
x = 63 / 1.4 = $45
Cost price of the shoes = $45

8) A bracelet that regularly sells for $44 is on sale for 25% off. Find the sale price of the bracelet.
Given: Original price = $44.
Discount Percentage = 25%
To Find: Selling Price of the product.
Discount = (25 / 100) x 44
= $11
Sale price = original price – discount
= 44 - 11 = $33
Sale price = $33.

9) If original price is $400 and discount is $80, find the selling price and the discount percentage.

Given:

Original price = $400

Discount = $80

To Find: The discount percentage.

Solution:

Selling price = original price – discount

= 400 – 80 = $320

Selling price = $320

Discount percentage = (discount / original price) x 100

= (80/400) x 100 = 20%

Discount percentage = 20%

10) An amount of $3,750.00 is deposited in a bank paying an annual interest rate of 4 % compounded monthly. Find the balance after3 years and 2 months.

Given: Principal amount = $3,750, Rate of Interest = 4%

To Find: Total investment value after 3 years and 2 months

Solution:

Using the compound interest formula

$A = P (1 + r/n)^{nt}$

with P = 3750, r = 4/100 = 0.04,

Since the rate of interest is compounded monthly, n = 12

Number of years (t) = 3 + 2/12 = 3 + 1/6 = 19/6.

(Note: t must be in years!)

Therefore,

$A = 3750 (1 + 0.04/12)^{12*(19/6)}$

= $4,255.50

So, the balance after 3 years and 2 months is approximately $4,255.50.