



Profit Loss Discounts - Free Sample Quiz - Explanatory Answers

1. **If the cost price of 30 articles is equal to the selling price of 25 articles, then what % profit or % loss does the merchant make?**

Let us assume that the cost price of one article be \$1.
Then the cost price of 30 articles = \$30.
The merchant sells 25 articles at the cost price of 30 articles.
Therefore, selling price of 25 articles = \$30.

We have assumed that the cost price of an article is \$1. Hence, cost price of 25 article is \$25.

Cost price of 25 articles = \$25. Selling price of 25 articles = \$30.
Therefore, profit by selling 25 articles = 30 - 25 = \$5.

Therefore, % profit = $\frac{\text{Profit}}{\text{Cost}} \times 100 = \frac{5}{25} \times 100 = 20\%$ profit. Choice (C) is correct.

Here is a shortcut to solve this question.

When the cost price of "x" articles = selling price of "y" articles, then the % profit made = $\frac{x - y}{y} * 100$

2. **A merchant marks her goods up by 50% and then offers a 20% discount on the list price. What % profit does the merchant finally make?**

Let us assume the cost price to be \$100
Then the list price of the article = \$100 + \$50 = \$150

If the list price is \$150 and if the merchant offers a 20% discount, then the discount offered by the merchant will be 20% of 150 = \$30.

Therefore, the final price at which the merchant sells = 150 - 30 = \$120.

Hence, the profit finally made by the merchant = 120 - 100 = 20

Therefore, % profit = $\frac{\text{Profit}}{\text{Cost}} \times 100 = \frac{20}{100} \times 100 = 20\%$

Choice (C) is correct.

3. **If the selling price of an article is \$180 and the merchant has marked his goods up by 20% to arrive at the selling price, then what is the cost price of the article to the merchant?**

If the cost price of the article is "c".

Then, with a 20% markup its selling price = c + 20% of c = 1.2c.

We know the selling price is \$180 i.e., 1.2c = 180

Or c = $\frac{180}{1.2} = 150$.

Choice (A) is correct.