

## Discount & Sale Price Formulas

$$\frac{\text{Discount}}{100} = \frac{\text{Original Price} - \text{Sale Price}}{\text{Original Price}}$$

$$\text{Sale Price} = \text{Original Price} - \left( \text{Original Price} \times \frac{\text{Discount}}{100} \right)$$

### *Example:*

What is the sale price of a pair shoes that costs \$160 if there is a discount of 15%?

$$\begin{aligned} \text{Sale Price} &= 160 - \left( 160 \times \frac{15}{100} \right) \\ &= 136 \end{aligned}$$

1. The marked price on an item was Rs 2000/- but the shopkeeper offered a double discount of 20% and 15%. How much did he finally sell the item for?

- a. Rs. 640
- b. Rs. 1300
- c. Rs. 1360
- d. Rs. 1600

|        |
|--------|
| Answer |
|--------|

**Answer:** c. Rs. 1360

**Explanation:**

First discount = 20%

$\therefore$  Price after First discount =  $100 - 20\% = 80\%$  of M.P =  
 $80\% \times 2000 = \text{Rs. } 1600$

Second discount = 15%

$\therefore$  Price after Second discount =  $100 - 15\% = 85\%$  of new  
price =  $85\%$  of 1600 = **Rs. 1360/-**

**So, the item was finally sold for Rs. 1360/-**



4. The cost price of the goods for a shopkeeper was X. He marked them at a 20% higher price than the Cost Price. Finally he sold the goods at 30% discount. Did he earn a profit or incur a loss? How much?

- a. 5% Profit
- b. 5.5% Profit
- c. 10% Loss
- d. 16% Loss

Answer

**Answer:** d. 16% Loss

**Explanation:**

Let CP = Rs. 100

Marked Price = 20% more than CP

∴ MP = Rs. 120

Discount = 30% on marked price

∴ SP = (100-30)% of MP

$$\therefore \text{SP} = \frac{70}{100} \times 120 = \text{Rs. } 84$$

$$\text{Loss\%} = \frac{100-84}{100} \times 100 = 16\%$$



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A restaurant owner allows employees to purchase meals for 28% off list price. An employee purchases a meal with a list price of \$16.50. What does she pay for the meal?

**Possible Answers:**

\$12.06

\$13.20

\$12.40

\$11.88

\$4.62



**Correct answer:**

\$11.88

Explanation:

If she gets a 28% discount, she pays 72% of the list price:

$$.72 \times \$16.50 = \$11.88$$

Vanessa purchased an mp3 player, originally priced at \$290, but discounted by \$27. Approximately what percent discount did Vanessa receive on the mp3 player?

**Possible Answers:**

21%

14%

9%

5%

2%



**Correct answer:**

9%

Explanation:

27 is a little less than 29, which is 10% of \$290. Therefore, 9% is the closest approximation.

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## NTS GAT General Past Papers Questions

### Quantitative – Exam No. 01

#### Zakat Related Problems

Prepared By: GAT Online Tutor

#### Formulas:

1. If zakat is given and total amount is asked, then multiply zakat by 40.

$$\text{Total amount} = \text{Zakat} \times 40$$

2. If total amount is given and zakat is asked, then divide total amount by 40.

$$\text{Zakat} = \frac{\text{Total amount}}{40}$$

3. Total amount is always greater than zakat.

4. Zakat is paid at a rate of 2.5% in Islam. (PP) **Exercise:**

1. Find the amount of zakat on 11,040? (PP) **Solution:**

$$\text{Zakat} = \frac{11,040}{40} = 276$$

2. Find the total amount if zakat paid was 315? (PP)

**Solution:**

$$\text{Total amount} = 315 \times 40 = 12,600$$

3. Find the amount of zakat on 280,000? (PP)

**Solution:**

$$\text{Zakat} = \frac{280,000}{40} = 7,000$$

4. Find the total amount if zakat paid was 5,680?

**Solution:**

$$\text{Total amount} = 5,680 \times 40 = 227,200$$

5. Find the amount of zakat on 500,000? (PP)

**Solution:**

$$\text{Zakat} = \frac{500,000}{40} = 12,500$$

6. Find the total amount if zakat paid was 5,521,580?

**Solution:**

$$\text{Total amount} = 5,521,580 \times 40 = 220,863,200$$

7. Ali paid Rs. 7,000 as zakat at the rate of 2.5% at the end of year from his savings. Calculate his savings? (PP)

**Solution:**

$$\text{Savings} = \text{Zakat} \times 40$$

$$\text{Savings} = 7,000 \times 40$$

$$\text{Savings} = 280,000$$