1. If an article is sold at a loss of 25%, and the selling price is ₹450, find the cost price.

Cost Price (CP) when Loss% and SP are known:
CP = SP ÷ (1 - Loss%)
CP=4501−0.25=4500.75=600CP ={450}{1 - 0.25} = {450}{0.75} = 600CP=1−0.25450=0.75450 =600
Answer: ₹600 (Option c)

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2. A person bought an item for ₹1200 and sold it for ₹1440. What is the profit percentage?

Cost Price (CP) when Profit% and SP are known:
CP = SP ÷ (1 + Profit%)
{Profit%} = \frac{1440 - 1200}{1200} \times 100 = \frac{240}{1200} \times 100 = 20\%
Answer: 20% (Option c)

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3. If the selling price of an item is ₹960 and the cost price is ₹800, what is the profit percentage?

Selling Price (SP) when Loss% and CP are known:
SP = CP × (1 - Loss%)
{Profit%} = \frac{960 - 800}{800} \times 100 = \frac{160}{800} \times 100 = 20\%
Answer: 20% (Option b)

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4. A shopkeeper sells a fan at ₹1200 with a loss of 20%. Find the cost price.

Selling Price (SP) when Loss% and CP are known:
SP = CP × (1 - Loss%)
CP=12001−0.20=12000.80=1500CP = \frac{1200}{1 - 0.20} = \frac{1200}{0.80} = 1500CP=1−0.201200=0.801200=1500
Answer: ₹1500 (Option b)

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5. If the cost price of an article is ₹400 and it is sold for ₹480, what is the profit percentage?

\text{Profit%} = \frac{480 - 400}{400} \times 100 = \frac{80}{400} \times 100 = 20\%
Answer: 20% (Option b)

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6. A trader gives two successive discounts of 20% and 10%. Find the net discount percentage.

Loss Percentage:
Loss% = [(CP - SP) ÷ CP] × 100
\text{Net Discount%} = 20 + 10 - \frac{20 \times 10}{100} = 30 - 2 = 28\%
Answer: 28% (Option a)

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7. A man sold a shirt for ₹800 after giving a 20% discount. Find the marked price.

Discount Percentage:
Discount% = [(MP - SP) ÷ MP] × 100

MP=8001−0.20=8000.80=1000MP = \frac{800}{1 - 0.20} = \frac{800}{0.80} = 1000MP=1−0.20800=0.80800=1000
Answer: ₹1000 (Option b)

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8. A watch is sold for ₹1800 with a 25% profit. Find the cost price.

Marked Price (MP) when SP and Discount% are known:
MP = SP ÷ (1 - Discount%)

CP=18001+0.25=18001.25=1440CP = \frac{1800}{1 + 0.25} = \frac{1800}{1.25} = 1440CP=1+0.251800=1.251800=1440
Answer: ₹1440 (Option c)

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9. A shopkeeper marks an article at ₹1500 and allows a 10% discount. Find the selling price.

Net Discount for Successive Discounts:
Net Discount% = A + B - (A × B ÷ 100)
SP=1500×(1−0.10)=1500×0.90=1350SP = 1500 \times (1 - 0.10) = 1500 \times 0.90 = 1350SP=1500×(1−0.10)=1500×0.90=1350
Answer: ₹1350 (Option b)

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10. A merchant buys 10 pens for ₹150 and sells them for ₹200. What is his profit percentage?

Markup Percentage (when Profit% and Discount% are known):
Markup% = [(Profit% + Discount%) ÷ (1 - Discount%)] × 100
CP=150,SP=200CP = 150, SP = 200CP=150,SP=200
\text{Profit%} = \frac{200 - 150}{150} \times 100 = \frac{50}{150} \times 100 = 33.33\%
Answer: 33.33% (Option c)

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11. A trader gives a 15% discount on an item and still makes a profit of 20%. What is the markup percentage?

CP and SP Relationship:

- **If SP > CP, there is a Profit.**
- **If SP < CP, there is a Loss.**

\times 100
\text{Markup%} = \frac{20 + 15}{1 - 0.15} = \frac{35}{0.85} = 41.17\% \approx 40\%
Answer: 40% (Option c)

12. A table is sold for ₹2250 at a 10% profit. What is the cost price?

Formula: \text{CP} = \frac{\text{SP}}{1 + \text{Profit%}}
CP=22501+0.10=22501.10=2045.45≈2045\text{CP} = \frac{2250}{1 + 0.10} = \frac{2250}{1.10} = 2045.45 \approx 2045CP=1+0.102250=1.102250=2045.45≈2045
Answer: ₹2000 (Option c)

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13. If a shopkeeper wants a profit of 25% on an item that costs ₹800, what should be the selling price?

Profit or Loss on a Marked Price with Discount:
Profit% or Loss% = [(SP - CP) ÷ CP] × 100

SP=800×(1+0.25)=800×1.25=1000\text{SP} = 800 \times (1 + 0.25) = 800 \times 1.25 = 1000SP=800×(1+0.25)=800×1.25=1000
Answer: ₹1000 (Option b)

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14. A refrigerator is sold for ₹15,000 at a loss of 10%. Find the cost price.

CP=150001−0.10=150000.90=16666.67≈16,667\text{CP} = \frac{15000}{1 - 0.10} = \frac{15000}{0.90} = 16666.67 \approx 16,667CP=1−0.1015000=0.9015000 =16666.67≈16,667
Answer: ₹16,500 (Option a)

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15. An article is marked 50% above the cost price and then sold at a discount of 20%. What is the profit percentage?

vLet the cost price = ₹100.
Marked Price = ₹150.
Selling Price = 150×0.80=₹120150 \times 0.80 = ₹120150×0.80=₹120.
Profit = 120−100=₹20120 - 100 = ₹20120−100=₹20.
\text{Profit%} = \frac{20}{100} \times 100 = 20\%
Answer: 20% (Option a)

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16. A dealer makes a profit of 12% after allowing a 5% discount. Find the marked price of an article whose cost price is ₹400.

MP=400×(1+0.12)1−0.05=400×1.120.95=4480.95=471.58≈472MP = \frac{400 \times (1 + 0.12)}{1 - 0.05} = \frac{400 \times 1.12}{0.95} = \frac{448}{0.95} = 471.58 \approx 472MP=1−0.05400×(1+0.12)=0.95400×1.12=0.95448=471.58≈472
Answer: ₹500 (Option a)

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17. A book is bought for ₹480 and sold for ₹576. What is the profit percentage?

Successive Increase or Decrease:
Net Change% = A + B + (A × B ÷ 100)
where **A** and **B** are percentage changes.
\text{Profit%} = \frac{576 - 480}{480} \times 100 = \frac{96}{480} \times 100 = 20\%
Answer: 20% (Option c)

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18. If a profit of ₹50 is made on an article whose cost price is ₹500, what is the profit percentage?

Profit/Loss in Selling Multiple Articles:

- If selling part at profit and part at loss, calculate net profit/loss using weighted averages.

\text{Profit%} = \frac{50}{500} \times 100 = 10\%
Answer: 10% (Option c)

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19. A shopkeeper sells a cycle at a 15% profit and the selling price is ₹2300. Find the cost price.

CP=23001+0.15=23001.15=2000\text{CP} = \frac{2300}{1 + 0.15} = \frac{2300}{1.15} = 2000CP=1+0.152300=1.152300=2000
Answer: ₹2000 (Option b)

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20. The cost price of an article is ₹750 and it is sold at ₹900. What is the gain percentage?

\text{Profit%} = \frac{900 - 750}{750} \times 100 = \frac{150}{750} \times 100 = 20\%
Answer: 20% (Option c)

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21. A man sells an item at 20% loss. If the selling price is ₹640, find the cost price.

CP=6401−0.20=6400.80=800CP = \frac{640}{1 - 0.20} = \frac{640}{0.80} = 800CP=1−0.20640 =0.80640=800
Answer: ₹800 (Option c)

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22. A trader sells a mobile phone for ₹9600 at a profit of 20%. Find the cost price.

CP=96001+0.20=96001.20=8000CP = \frac{9600}{1 + 0.20} = \frac{9600}{1.20} = 8000CP=1+0.209600=1.209600=8000
Answer: ₹8000 (Option b)

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23. A shopkeeper sells an item for ₹500 at a 20% profit. What was the cost price?

CP=5001+0.20=5001.20=416.67≈417CP = \frac{500}{1 + 0.20} = \frac{500}{1.20} = 416.67 \approx 417CP=1+0.20500=1.20500=416.67≈417
Answer: ₹400 (Option a)