Practice Questions for profit & Loss

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| Question | **An uneducated retailer marks all his goods at 50% above the cost price and thinking that he will still make 25% profit, offers a discount of 25% on the marked price. What is his actual profit on the sales?** |
| Option A | 12.5 % |
| Option B | 13.5 % |
| Option C | 13 % |
| Option D | 14 % |
| Answer | Option A |
| Explanation | Let C.P. = Rs. 100. Then, marked price = Rs. 150. S.P. = 75% of Rs. 150 = Rs. 112.50. ∴ Gain% = 12.50% |

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| Question | **A retailer buys 40 pens at the marked price of 35 pens from a wholesaler. If he sells these pens giving a discount of 1%, what is the profit percent?** |
| Option A | 12 % |
| Option B | 10 % |
| Option C | 15 % |
| Option D | 16 % |
| Answer | Option B |
| Explanation | Let the marked price of each pen be Re. 1. Then, C.P. of 40 pens = Rs. 36. S.P. of 40 pens = 99% of Rs. 40 = Rs. 39.60. ∴ Profit% = [3.60/36 \* 100]% = 10%. |

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| Question | **John bought 15 apples for Rs.10 and sold them at the rate of 12 apples for Rs.12. What is the percentage of profit made by him?** |
| Option A | 50 % |
| Option B | 60 % |
| Option C | 65 % |
| Option D | 100 % |
| Answer | Option A |
| Explanation | He got profit ⇒ profit % = 15/10 \* 12/12 = 1.5 ⇒ 50%. |

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| Question | **30% loss on cost price in what percent loss on selling price?** |
| Option A | 28 % |
| Option B | 38 % |
| Option C | 40.35 % |
| Option D | 42.85 % |
| Answer | Option D |
| Explanation | Loss = 30% on CP i.e., 0.3CP ⇒ SP = 0.7CP Loss % on  SP = loss/SP \* 100 = 0.3CP/0.7CP \* 100 = 42.85%. |

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| Question | **David purchased a house for Rs.75000 and a site for Rs.15000 respectively, if he sold the house for Rs.83000 and the site for Rs.10000, then find the resultant percentage of gain?** |
| Option A | 30 % |
| Option B | 330/3 % |
| Option C | 31/3 % |
| Option D | 3.33 % |
| Answer | Option D |
| Explanation | Total CP = 90000 & total SP = 93000 ⇒ gain = SP/CP = 93000/90000 = 1.0333 = 3.33%. |

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| Question | If the cost price of 20 articles is equal to the selling price of 25 articles, what is the % profit or loss made by the merchant? |
| Option A | 25 % loss |
| Option B | 25 % profit |
| Option C | 20 % loss |
| Option D | 20 % profit |
| Answer | Option C |
| Explanation | Let the cost price of 1 article be $1. Therefore, cost price of 20 articles = 20 \* 1 = $20  The selling price of 25 articles = cost price of 20 articles = $20.  Now, we know the selling price of 25 articles. Let us find the cost price of 25 articles.  Cost price of 25 articles = 25 \* 1 = $25.  Therefore, profit made on sale of 25 articles = Selling price of 25 articles - cost price of 25 articles  = 20 - 25 = -$5.  As the profit is in the negative, the merchant has made a loss of $5.   Therefore, % loss = (loss/ cost price) X 100  % loss = (-5 /25) X 100 = 20 % loss |

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| Question | Sam buys 10 apples for $1. At what price should he sell a dozen apples if he wishes to make a profit of 25%? |
| Option A | $0.125 |
| Option B | $ 1.25 |
| Option C | $ 0.25 |
| Option D | $ 1.5 |
| Answer | Option D |
| Explanation | The cost price of 1 apple = (1/10)th of a dollar or $0.10. As Sam wishes to make a profit of 25%, his selling price per apple will be 0.10 + 25% of 0.10 = $0.125.  If the selling price of 1 apple is $0.125, then the selling price of a dozen apples = 12 \* 0.125  = $1.5 |

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| Question | By selling an article at 80% of its marked price, a merchant makes a loss of 12%. What will be the percent profit made by the merchant if he sells the article at 95% of its marked price? |
| Option A | 5 % profit |
| Option B | 1 % loss |
| Option C | 10 % profit |
| Option D | 4.5 % profit |
| Answer | Option D |
| Explanation | Let the marked price be S and the cost price of the article be C  When the merchant sells at 80% of marked price he sells at 0.8S  This results in a loss of 12%.  Loss is always computed as a percentage of cost price.  Therefore, the loss incurred by the merchant = 0.12C  Hence, he will be selling the article at C - 0.12C = 0.88C when he sells at 80% of his marked price.  Equating the two sides of the relation, we get 0.8S = 0.88C  Or S = (0.88/0.8)C  Or S = 1.1C  Now, if the merchant sells at 95% of the marked price, he will be selling at 95% of 1.1C = 1.045C  Hence, the merchant will make a profit of 4.5%. |

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| Question | What is the maximum percentage discount that a merchant can offer on her Marked Price so that she ends up selling at no profit or loss, if she had initially marked her goods up by 50%? |
| Option A | 50 % |
| Option B | 33.33% |
| Option C | 20 % |
| Option D | 25 % |
| Answer | Option B |
| Explanation | The merchant had initially marked her goods up by 50%.  Let us assume that her cost price of the goods to be $ 100.  Therefore, a 50% mark up would have resulted in her marked price being $100 + 50% of $100 = $100 + $50 = $150.  The question states that she finally sells the product at no profit or loss. This essentially, means that she sells the product at cost price, which in this case would be $100.  Therefore, she had offered a discount of $50 on her marked price of $150.  Hence, the % discount offered by her = (50/150)\*100 = 33.33%. |

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| Question | A merchant who marked his goods up by 50% subsequently offered a discount of 20%. What is the percentage profit that the merchant make after offering the discount? |
| Option A | 20% |
| Option B | 120 % |
| Option C | 25 % |
| Option D | 16.66 % |
| Answer | Option D |
| Explanation | The easiest way to solve these kinds of problems is to assume a cost price for the merchant.  To make calculations easy, let us assume that the cost price = $100  The merchant marks his goods up by 50%.  Therefore, his quoted price = cost price + mark up  = $100 + 50% of $100 = 100 + 50 = $150  Now, the merchant offers a discount of 20% on his quoted price  Therefore, amount of discount = 20% of $150 = 20% of 150 = $30  Therefore, he finally sells it for $150 - $30 = $ 120.  We assumed his cost to be $ 100 and he sold it finally for $ 120.  Therefore, his net profit = $ 20 on his cost of $ 100  Hence, his % profit = (20/100)\*100 = 20%. |

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| Question | **One-fifth of the cost price, one-seventh of the marked price and one-sixth of the selling price are all equal. What is the gain or loss to the trader?** |
| Option A | 120 % |
| Option B | 140 % |
| Option C | 162/3 % |
| Option D | 20 % |
| Answer | Option D |
| Explanation | CP/5 = SP/6 ⇒ SP/CP = 1.2 ⇒ 20% gain. |

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| Question | **If an article is sold at 5% gain instead of 5% loss,the seller gets Rs 6.72 more. The C.P of the article is?** |
| Option A | 132.82 |
| Option B | 138.55 |
| Option C | 148.81 |
| Option D | 150.45 |
| Answer | Option C |
| Explanation | 100 \* 10/6.72 = 148.81 answer |

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| Question | **Peter bought an item at 20% discount on its original price. He sold it with 40% increase on the price he bought it. The sale price is by what percent more than the original price?** |
| Option A | 7.2 |
| Option B | 7.5 |
| Option C | 10 |
| Option D | 12 |
| Answer | Option D |
| Explanation | Let the original price be Rs. 100. Then, C.P. = Rs. 80. S.P. = 140% of Rs. 80 = Rs. [112-100%] = 12%. |

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| Question | **A shopkeeper sold an article offering a discount of 5% and earned a profit of 23.5%. What would have been percentage of profit earned of no discount was offered?** |
| Option A | 20 |
| Option B | 30 |
| Option C | 35 |
| Option D | 15 |
| Answer | Option B |
| Explanation | Let C.P. be Rs. 100. Then, S.P. = Rs. 123.50. Let marked price be Rs. x. Then,  95/100x = 123.50 ⇒ x = Rs. [12350/95] = Rs. 130. Now, S.P. = Rs. 130, C.P. = Rs. 100. ∴ Profit% = 30%. |

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| Question | **Even after reducing the marked price of a transistor by Rs. 32, a shopkeeper makes a profit of 15%. If the cost price be Rs.320, what percentage of profit would he have made if he had sold the transistor at the marked price?** |
| Option A | 18 % |
| Option B | 20 % |
| Option C | 25 % |
| Option D | 32 % |
| Answer | Option C |
| Explanation | C.P. = Rs. 320, Profit = 15% S.P. Rs. [115/100 \* 320] = Rs. 368. Marked price = Rs. (368 + 32) = Rs. 400. ∴ Required profit% = [80/320 \* 100] % = 25% |