

**Exercises 4 (These questions range from easy, med, hard, and extension)**

1. Jas Cosmetics store sold 250 lipsticks last month at \$ 35 each. What was the store's total revenue for the month? (easy)
2. Mary's boutique sold 45 identical skirts last week for a total revenue of \$ 5625. What was the price of one skirt? (easy)
3. Sun & Fun sells basketballs for \$ 80 each. Last month's basketball sales amounted to \$ 5920. How many basketballs were sold last month? (easy)
4. Radio Place buys antennas for \$ 147 each. Additional costs are 32 % of the buying cost. Find the store's unit cost for each antenna. (easy)
5. A market trader buys vegetables for \$ 2000 and sells them for \$ 2850. Find his profit as a percentage of buying cost. (easy)
6. A trader buys 30 cans of paint for \$ 12 each and sells them to a decorator for \$ 18 each. Find his total profit as a percentage of his revenue. (med)
7. A local market trader buys suitcases for \$ 140 each and sells them at a profit of 35 % of the buying cost. For what price does he sell the suitcases? (easy)
8. A trader buys 50 pairs of trainers for \$ 120 each. He sells 32 pairs for \$ 175 each, and the rest for \$ 135 each. Calculate his total profit. (med)
9. A trader supplies a clothes store with jackets. He **buys (buying cost)** the jackets for \$ 105 each and **normally sells them to the store (SP)** for \$ 185 each. He buys 60 jackets, but only sells 45 of them at the regular price. He sells **the rest (60-45)** to a different store at the **buying cost (BC)**. The trader's **additional costs (AC)** amount to 15 % of the buying cost.
  - (a) Does the trader make a profit or a loss, and how much? (hard)
  - (b) Find the total profit or loss as a percentage of buying cost. (easy)

10. A stationery store buys calculators at \$ 60 each and sells them for \$ 95 each. The store estimates its additional costs at 25 % of buying costs. Find the profit made on each calculator. (med)
11. An electrical goods store buys televisions for \$ 1250 each and sells them for \$ 1890 each. It assumes its additional costs to be 40 % of the buying cost. Find
  - (a) The profit or loss made on each television. (med)
  - (b) The profit or loss as a percentage of buying cost. (easy)
12. A bookstore buys paperback bestsellers from its supplier for \$ 25 each and sells them for \$ 35 each. The store assumes its additional costs are 30 % of the buying cost. The store buys 200 paperbacks and sells 123 of them at the regular price. The rest are sold in a sale at half the regular price.
  - (a) Does the store make a profit or loss on the books, and by how much? (hard)
  - (b) Find the profit or loss as a percentage of total revenues. Round your answer to the nearest percent. (med)
13. Momo Store buys two types of scientific calculators. Model XX costs \$ 44 and sells for \$ 65. Model XY costs \$ 35 and sells for \$ 50. Additional costs are 18 % of the buying cost. For each model, determine:
  - (a) The margin. (easy)
  - (b) The additional costs. (easy)
  - (c) The profit. (hard)
14. Tuna Snack Shop buys tuna sandwiches for \$ 2.25 each. The store's additional expenses for each tuna sandwich are \$ 0.35. The shop sells tuna sandwiches at \$ 4.25 each.
  - (a) What is the store's margin per tuna sandwich? (easy)
  - (b) What is the profit on the sale of each tuna sandwich? (med)
  - (c) What is the profit as a percentage of the selling price? Write your answer to the nearest tenth. (med)

15. A trader buys and sells rings. He buys 40 rings at \$ 85 each. He sells 26 of them at double the buying cost. The rest are sold at buying cost.
- (a) What is the profit or loss as a percentage of the buying cost? (med)
  - (b) What is the total profit or loss as a percentage of the total revenue? (med)
16. An appliance store buys refrigerators from its supplier for \$ 725 each and sells them for \$ 1100 each. The manager knows that additional costs are 25 % of the buying cost. The store buys 15 refrigerators and sells 10 of them at the regular price, and the rest, in a clearance sale, at \$ 600 each.
- (a) Does the store make a profit or loss on the refrigerators, by how much? (hard)
  - (b) Find the total profit or loss as a percentage of total buying cost. Write your answer to 2 d.p. (easy)
17. A street retailer buys bottles of juice for \$ 1.50 each and sells them at a profit of 75% of the buying cost. What is the selling price of the bottles of juice? (med)
18. Jumbo Electronics buys Cell-Me mobile phones for \$ 660 each. Additional costs are 40% of buying cost. The shop intends to have a profit of 28 % of the buying cost. For how much should Jumbo Electronics sell the Cell-Me mobile phones? Round your answer to the nearest ten dollars. (hard)
19. Super Hardware buys lawn mowers for \$ 450 each. The store requires a 35 % markup on the buying cost. Find the regular selling price of the lawn mowers. (med)
20. Tire Services bought 4 tires for \$ 185 each and sold them at a margin of 20 % of the selling price
- (a) What was the selling price of one tire? (extension)
  - (b) What was the markup as a percentage of buying cost? (hard)

21. The margin on each of two laptops is \$ 485. The markup for laptop A is 25 % based on the buying cost, whilst the markup for laptop B is 25 % based on the selling price. Determine:
- (a) The buying cost for each. (extension)
  - (b) The selling price for each. (extension)
22. A retailer buys a stove at discount, for \$ **1450 less 35%** ( $1450 - 1450 \times 35\%$ ). The store's additional costs are 20% of the regular selling price ( $AC = 20\% \times SP$ ). The retailer's profit is 14% of the regular selling price ( $UP = 14\% \times SP$ ). During a clearance sale the stove was sold at a discount of 40%. What was the profit or loss? (extension)
23. A photography shop usually sells a PentaxPro camera for \$ 2025. The shop buys 20 cameras from its supplier for \$ 1450 each, and sells 8 of them at the regular price. During a special promotion a discount of 15% is offered, and another 9 cameras are sold at the discount price. The remaining 3 cameras are written off as a result of theft. The shop usually assumes that its additional costs are 30% of its buying cost.
- (a) Does the shop make a profit or loss on the cameras, by how much? (hard)
  - (b) Find the total profit or loss as a percentage of the total buying cost. (hard)
24. A kitchen shop buys a set of dishes for \$ 360. The manager assumes additional costs will be 20 % of the selling price, and wants to make a profit of 15 % of the selling price. For what price should he sell the dishes? (hard)

25. Lisa has just started his new business, Lisa Motors, which will buy and sell used cars. As the manager, Lisa will pay himself a salary of \$ 12 500 per month. He also has an assistant who will be paid \$ 3600 per month. The rent and utility bills for his showroom are \$ 1200 per month. In one particular month of operation, Lisa Motors bought and sold the following cars:

<b>Car</b>	<b>bought for:</b>	<b>sold for:</b>
Toyota Tercel	\$ 14 250	\$ 19 900
Toyota Tercel	\$ 11 800	\$ 15 600
Jeep Wrangler	\$ 42 000	\$ 52 500
Audi A3	\$ 41 000	\$ 49 750
BMW 318	\$ 8500	\$ 13 750
Daewoo Racer	\$ 15 400	\$ 21 900
Honda Accord	\$ 21 000	\$ 15 000
Mazda 929	\$ 11 000	\$ 15 500
Ford Escort	\$ 21 750	\$ 13 450

Does the company make a profit or loss in this month, and by how much? (med)

26. CleaGood Domestic Services (CGDS) is a new business, which hires out cleaners for apartments and villas. The expenses of the office are \$ 520 per day, and there are 5 cleaners on the staff. CGDS pays the cleaners \$ 40 per day and hires them out for \$ 25 per hour. On Saturday, all five cleaners were hired out for 8 hours each. On Sunday, two were hired out for 7 hours each, and three were hired out for 9 hours each. Find the profit or loss of the business in these two days. (hard)

27. Lancy's buys coolers for \$ 23 each and sells them for \$ 34 each. Other additional costs amount to 30 % of the buying cost. Determine:

- (a) The margin. (easy)
- (b) The additional costs. (easy)
- (c) The profit. (med)

28. Mike Hardware buys indoor lights on sale, for \$ 6 per dozen less 15 %. The store's additional costs are 40 % of the buying cost and the required profit is 20 % of the buying cost. How much per dozen should the indoors lights be sold for? (extension – optional)
29. A trader buys an item listed at \$ 96 less  $33\frac{1}{3}$  % from a distributor. Additional costs are 26 % of the buying cost and profit is 19 % of the buying cost. For how much should the item be sold? (hard)
30. Blue Shoe bought a shipment of 300 pairs of shoes for \$ 115 per pair. The store sold 185 pairs at the regular selling price of \$ 200 per pair. 75 pairs were sold at a Thanksgiving discount of 40 % and the remaining pairs were sold during and after Thanksgiving sale for \$ 100 each pair.
- (a) What was the total revenue at which the 75 pairs of shoes were sold during the Thanksgiving sale? (med)
  - (b) What was the total revenue of the remaining pairs of shoes that were sold after the Thanksgiving sale? (med)
  - (c) What was the total profit or loss realized on the shipment? (hard)
31. A dealer bought laptops for \$ 6900 less 24 %. They were sold for \$ 8450 each.
- (a) What was the margin as a percentage of buying cost? Write your answer to 2 d.p. (med)
  - (b) What was the margin as a percentage of selling price? Write your answer to 2 d.p. (med)
32. A pharmacy's margin on a certain cough syrup is \$ 2.25. The pharmacy's margin is 15 % of the buying cost.
- (a) For how much did the pharmacy buy the cough syrup? (easy)
  - (b) What is the selling price of the cough syrup? (med)
  - (c) What was the rate of margin based on the selling price? Write your answer to 2 d.p. (easy)

33. Lisa Appliance Store sells washing machines at a margin of 23 % of the selling price. The store's margin on each machine is \$ 260.
- (a) What is the washing machine buying cost? (hard)
  - (b) For how much does the store sell the washing machine? (hard)
  - (c) What is the markup rate based on buying cost? (med)
  - (d) Do you think your answer in part (b) is realistic? Would the store round off the answer? Explain.
34. A local merchant sells a suitcase for \$ 82. His margin is 35% of selling price.
- (a) What is the buying cost? (med)
  - (b) What is the rate of margin based on buying cost? (med)
  - (c) If expenses are 22% of buying cost what is the break-even price? (med)
  - (d) If the suitcase is sold at a discount of 25%, what is the profit or loss? (hard)
35. If the markup is \$ 7 on a tie which costs High Street Clothing \$ 18, what is the percent markup based on the selling price? (med)
36. If a pencil costs \$ 0.79 and sells for \$ 1.25, find:
- (a) the markup. (easy)
  - (b) the percent markup based on selling price. (easy)

37. Harry's purchases printers at \$ 150 each. Their markup based on the buying cost is 25%. What is the selling price? (med)
  
38. Robin purchased a radio for \$ 295 and wants a markup of 40% on the selling price. What must the selling price be? Round your answer to the nearest ten dollar. (hard)