

Exercise 2

1. Answer each of the following questions.
 - (a) 75 is 20 % more than what number?
 - (b) 80 is 20 % less than what number?
 - (c) What number is 40 % less than 75?
 - (d) 45 increased by 30 % is what number?
 - (e) How much is \$ 220 increased by 60 %?
 - (f) How much is \$ 1750 decreased by 35 %?
 - (g) What amount is $33\frac{1}{3}$ % less than \$ 399?

2. Find the rate of change (increase or decrease) for each of the following.
 - (a) 30 increased by what percentage is 75?
 - (b) 165 decreased by what percentage is 99?
 - (c) The amount of \$ 480 is what percentage more than \$ 160?
 - (d) The amount of \$ 108 is what percentage less \$ 300?

3. The seating capacity of a football stadium, which had seated 50 000, was expanded to 56 250 seats. What percentage increase does this represent?

4. The rent of an apartment decreased from \$ 55 000 to \$ 47 000. What percentage decrease does this represent? Give your answer to 1 d.p.

5. A hair dryer, which regularly sells for \$ 120, is on sale for 20 % off the regular price. Find the sale price.

6. A TV originally priced at \$ 1550 was reduced to \$ 1240 during summer sale. What was the percentage rate of discount?
7. The selling price of a car was \$ 34 000. Now it is reduced by 10 %. Find the new selling price.
8. After a price increase of 10 % a television set is sold for \$ 1870. What was the price before the increase?
9. The regular selling price of a jacket is \$ 240. During a sale, 20% discount is given. What is the discounted price?
10. Sprint Company used to charge \$ 1.50 per minute for phone calls made to all North American cities. The charge has been increased by 12%. What is the new charge per minute?
11. In peeling potatoes 4 % of the mass of the potatoes is lost as “peel”. How much is left for use from a bag containing 55 kg?
12. A television has a price tag of \$ 1254 including 10 % tax. How much is the tax?
13. 0.2 % of the annual budget is spent on advertising. The amount spent on advertising is \$ 1090. How much is the annual budget?
14. Hala is an employee at Union Bank. Her monthly salary is \$ 8940. She receives an increase of 12.5 %. How much will her new salary be?
15. Sali received an increase of \$ 880 in his salary. His salary before the increase was \$ 8000. What was the percentage increase in his salary?
16. The value of a house increased by 6.4 %. The original price of the house was \$ 240 000. What is the new price of the house?
17. A dishwasher sells regularly for \$ 2450. During an inventory sale, the price was reduced to \$ 1520. What was the percentage decrease in the price to the nearest whole percent?
18. You received a pay increase of 8 %. Your new monthly salary is \$ 11 880. What was your old monthly salary?

19. Sales in December increased $16\frac{2}{3}\%$ over November sales. December sales were \$ 541 000. What were November sales? Round your answer to the nearest thousand dollars.
20. The price of a concert ticket goes up from \$ 75 to \$ 120. Calculate the percentage increase.
21. The price of a CD increases from \$ 45 to \$ 55. What is the percentage change?
22. The selling price of a camera is reduced from \$ 450 to \$ 375. Calculate the percentage decrease.
23. Harry's monthly salary rose from \$ 5600 to \$ 6450. What percentage increase did Harry receive? Round your answer to two decimal places.
24. The trading price of shares of a company decreased 40 % to \$ 18. What was the trading price per share before the decrease?
25. Adam sold his house for \$ 260 000. He sold his house for $156\frac{1}{2}\%$ more than what he paid for it. What was the original price of the house? How much did he gain? Round you answers to the nearest hundred.
26. The net price of a calculator before taxes is \$ 34.50. A tax rate of 8% is applied. What is the selling price of the calculator including taxes?
27. There are 1600 employees in a company, $3\frac{1}{4}\%$ of them did not report to work last Saturday. How many employees were absent?