



# Year 9 Mathematics

## Financial Mathematics Practice Test 1

Name \_\_\_\_\_

- 1 Write  $\frac{12}{25}$  as a percentage
- 2 Write 7.5% as a fraction.
- 3 Write 0.45 as a percentage
- 4 Write 25% as a decimal
- 5 Write 50c out of \$2.50 as a percentage
- 6 Find 15% of \$35
- 7 Determine the original amount if 5% of the amount is \$45
- 8 Increase \$70 by 15%.
- 9 Decrease \$5.20 by 40%
- 10 The price of a mobile phone increased from \$250 to \$280. Find the percentage increase.
- 11 An electrical store marks up all entertainment systems by 30%.  
If the cost price of one entertainment system is \$8000, what will be its selling price?
- 12 An electrical store advertises a 15% discount on all equipment as a holiday special.  
Find the sale price on a projection system that has a marked price of \$18 000.
- 13 A manufacturer produces an item for \$400 and sells it for \$540.
  - a) Determine the profit made.
  - b) Express this profit as a percentage of the cost price.
- 14 A toy store discounts a toy by 10% in a sale. If the sale price was \$10.80, what was the original price?
- 15 Jim earns an annual salary of \$59 735 and works a 38-hour week. His wife Betty works part time in retail and earns \$21.80 per hour.
  - a) Calculate how much Jim earns per week.
  - b) Determine who has the higher hourly rate of pay.
  - c) If Betty works on average 18 hours per week, what is her yearly income?

- 16 Jack works some weekends and late nights, and earns overtime for that work. His hourly rate of pay is \$16.
- Calculate Jack's time and a half rate of pay per hour.
  - Calculate Jack's double time rate of pay per hour.
  - Calculate Jack's weekly wage for a week where he works 18 hours at his normal rate, 2 hours at time and a half, and 1 hour at double time.
- 17 A saleswoman is paid a retainer of \$1500 per month. She also receives a commission of 1.25% on the value of goods she sells. If she sells goods worth \$5600 during the month, calculate her earnings for that month.
- 18 Liam has an annual salary of \$52 800. His payslip each month shows deductions for taxation of \$968.
- Calculate Liam's net income each month.
  - What percentage of Liam's monthly pay is being paid to the government by his employer for taxation?
  - If the taxation rate for Liam's salary changes to 19% with the first \$18 200 now tax free, calculate Liam's net income for the year.

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<b>Taxable income</b>	<b>Tax on this income</b>
0–\$18 200	Nil
\$18 201– \$37 000	19c for each \$1 over \$18 200
\$37 001– \$80 000	\$3572 plus 32.5c for each \$1 over \$37 000
\$80 001–\$180 000	\$17 547 plus 37c for each \$1 over \$80 000
\$180 001 and over	\$54 547 plus 45c for each \$1 over \$180 000

Use the tax table above to find the income tax for an income of \$48 000.

- 20 Calculate the simple interest earned if the principal is \$1000, the rate is 5% p.a. and the time is 3 years.
- 21 Calculate the simple interest on \$7000 invested at  $6\frac{1}{4}\%$  p.a. for 18 months.
- 22 Betty and Jim plan to invest some money for their child Jill. They invest \$4000 for 30 months in a bank that pays 4.5% p.a. Calculate the simple interest and the amount available at the end of the 30 months.
- 23 Jack invests \$2500 at 8% p.a. simple interest, for a period of time, to produce \$50 interest. For how long did he invest the money?

- 24 A Bank advertises \$450 interest a year on an investment of \$7500. Calculate the simple interest rate for this investment.
- 25 Hy Rate offers a loan of \$24 000 at 16% p.a. simple interest if the loan is repaid in equal monthly installments over 5 years.
- a How much interest is charged on the loan?
  - b What is the total amount of the loan and the interest?
  - c Calculate the size of each repayment.

## ANSWERS

- 1 48%
- 2  $\frac{3}{40}$
- 3 45%
- 4 0.25
- 5 20%
- 6 \$5.25
- 7 \$900
- 8 \$80.50
- 9 \$3.12
- 10 12%
- 11 \$10 400
- 12 \$15 300
- 13 a) \$140    b) 35%
- 14 \$12
- 15 a) \$1148.75    b) Jim is paid more    c) \$20 404.80
- 16 a) \$24    b) \$32    c) \$368
- 17 \$1570
- 18 a) \$4400    b) 22 %    c) \$46 226
- 19 \$7147
- 20 \$150
- 21 \$656.25
- 22 Interest = \$450    Total amount = \$4000 + \$450 = \$4450
- 23 3 months
- 24 6% p.a
- 25 a) \$19 200    b) \$43 200    c) \$720 a month