

## 8.12 Exercises

- An amount of \$3000 is borrowed at 22% p.a. and repayments made yearly for 5 years. How much will each repayment be?
- The sum of \$20 000 is borrowed at 18% p.a. interest over 8 years. How much will the repayments be if they are made monthly?
- David borrows \$5000 from the bank and pays back the loan in monthly instalments over 4 years. If the loan incurs interest of 15% p.a., find the amount of each instalment.
- Mr and Mrs Nguyen mortgage their house for \$150 000.
  - Find the amount of the monthly repayments they will have to make if the mortgage is over 25 years with interest at 6% p.a.
  - If the Nguyens want to pay their mortgage out after 15 years, what monthly repayments would they need to make?
- A loan of \$6000 is paid back in equal annual instalments over 3 years. If the interest is 12.5% p.a., find the amount of each annual instalment.
- The Smith family buys a car for \$38 000, paying a 10% deposit and taking out a loan for the balance. If the loan is over 5 years with interest of 1.5% monthly, find
  - the amount of each monthly loan repayment
  - the total amount that the Smith family paid for the car.
- A \$2000 loan is offered at 18% p.a. with interest charged monthly, over 3 years.
  - If no repayment need be paid for the first 2 months, find the amount of each repayment.
  - How much will be paid back altogether?
- Bill thinks he can afford a mortgage payment of \$800 each month. How much can he borrow, to the nearest \$100, over 25 years at 11.5% p.a.?
- Get Rich Bank offers a mortgage at  $7\frac{1}{2}\%$  p.a. over 10 years and Capital Bank offers a mortgage at  $5\frac{1}{2}\%$  p.a. over 25 years.
  - Find the amount of the monthly repayments for each bank on a loan of \$80 000.
  - Find the difference in the total amount paid on each mortgage.
- Majed buys a \$35 000 car. He puts down a 5% deposit and pays the balance back in monthly instalments over 4 years at 12% p.a. Find the total amount that Majed pays for the car.
- Amy borrowed money over 7 years at 15.5% p.a. and she pays \$1200 a month. How much did she borrow?

12. NSW Bank offers loans at 9% p.a. with an interest-free period of 3 months, while Sydney Bank offers loans at 7% p.a. Compare these loans on an amount of \$5000 over 3 years and state which bank offers the best loan and why.
13. Danny buys a plasma TV for \$10 000. He pays a \$1500 deposit and borrows the balance at 18% p.a. over 4 years.
- Find the amount of each monthly repayment.
  - How much did Danny pay altogether?
14. A store offers furniture on hire purchase at 20% p.a. over 5 years, with no repayments for 6 months. Ali buys furniture worth \$12 000.
- How much does Ali owe after 6 months?
  - What are the monthly repayments?
  - How much does Ali pay for the furniture altogether?
15. A loan of \$6000 over 5 years at 15% p.a. interest, charged monthly, is paid back in 5 annual instalments.
- What is the amount of each instalment?
  - How much is paid back altogether?