

4.5 Modelling Equations Continued!

EXAMPLE 1

You work at Sport Check and make 4% commission on all you sales. You also work at a clothing store where you make 3% commission. So far you have made \$500.

a) Write an equation to represent this situation.

b) If your sales at the clothing store were \$3200, how much were your sales at Sport Check?

EXAMPLE 2

You have a mix of quarters and nickels that total \$80.

a) Write an equation to represent this situation.

b) If you have 105 quarters, how many nickels do you have?

PRACTICE QUESTIONS

- Harvey works at a local computer store. On average, he requires 1.5 hours to sell a computer and 2 hours to repair one. He works a total of 44 hours a week.
 - Write an equation to represent this situation. Identify your variables!!
 - Last week he sold 13 computers. How many repairs did he complete?
- Hubert works for a book company. He receives \$3 for every book sale and \$1.50 for every magazine. Last month he made \$612.
 - Write an equation to represent this situation. Identify your variables!!
 - Last month he sold 108 books. How many magazines did he sell?
- The sum of five times the first number and four times the second number is 140.
 - Write an equation to represent this situation. Identify your variables!!
 - If the first number is 12, identify the second number.
- Linney works for a local car dealership. She makes 2% commission on the sale of a minivan and 3% commission on the sale of a sports car. Last week she made \$2600.
 - Write an equation to represent this situation. Identify your variables!!
 - Last week she made \$62 500 in minivan sales. Calculate her sports car sales.
- The coin box of a vending machine contains \$4.55 in dimes and quarters.
 - Write an equation to represent this situation. Identify your variables!!
 - If the box contains 8 dimes, calculate the number of quarters in the box.
- Six adult tickets and four child tickets to the local movie theatre cost \$68.
 - Write an equation to represent this situation. Identify your variables!!
 - If a children's ticket cost \$4.25, calculate the cost of an adult ticket.
- The perimeter of a rectangle is 32 cm. The length is 9cm. What is the width of the rectangle?
- The perimeter of an isosceles triangle is 20 cm. The two equal sides each measure 6 cm. How long is the third side?
- The student council is planning a celebration. It costs \$300 for the DJ and \$5 per student for food.
 - Write an equation to represent the total cost of the event.
 - The school budgeted \$3000 for the party. How many students can attend?
- Complete p. 227 #7, 11, 13, 17, 19

ANSWERS 1. ~12 repairs 2. 192 magazines 3. 20 4. \$45 000 5. 15 quarters 6. \$8.50 7. 7 cm 8. 8cm 9. 560 students