

**2.2**


**Rates**

MathLinks 8, pages 55–62

**Key Ideas Review**

- Unscramble the letters to form a word in each blank to complete the statement.
  - A rate is a comparison of two quantities measured in \_\_\_\_\_ units.  
TFDIFEERN
  - A rate can be expressed as a \_\_\_\_\_, but cannot be expressed as a \_\_\_\_\_.  
OFNARTCI  
REPTCNE
  - A unit rate is a rate in which the second term is \_\_\_\_\_.  
NOE
  - To compare the cost of similar items a unit \_\_\_\_\_ is useful.  
EPCIR

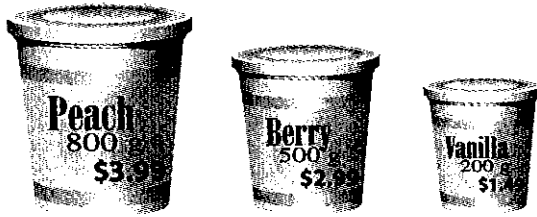
**Practise and Apply**

- Determine the unit rate. Show your thinking.
  - Riding 50 km in 3 h. Round your answer to the nearest hundredth.
  - Typing 660 words in 10 minutes.
  - Moving 216 students in 4 buses.  

  - Carrying 138 apples in 6 bags.
  - Raising \$315 in 35 h.
  - Driving 220 km in  $2\frac{1}{2}$  h.
- Calculate the unit rate for each situation. Show your thinking. Then, circle the greater rate for each pair.
  - \$210 for 30 h or \$198 for 20 h
  - 574 km in 7 h or 420 km in 5 h
  - 64 h of sunlight in 16 days or 69 h sunlight in 23 days
- The Mitchells' car used half a tank of gas when travelling from Edmonton to Calgary, a trip of about 300 km. If the fuel tank's capacity is 54 L, what was the car's fuel consumption rate in L/100 km?

Name: \_\_\_\_\_

Date: \_\_\_\_\_

5. You are shopping for yogurt.



- a) What is the unit price for each container of yogurt?
- b) What is the unit price per 100 g for each container of yogurt?
- c) Which container is the best buy? Explain your thinking.

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6. Jeremy earned \$1365 after working for half of a year. He expects to continue working for the same number of hours each month, at the same pay rate.

- a) How much will he earn in total after working for a year? Show two different ways of arriving at the answer.

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- b) If he works 10 hours a week, what is his hourly rate of pay? Show your thinking.

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7. This table lists the approximate area and population of five countries.

Country	Population	Land Area (km <sup>2</sup> )	Density
Canada	31 006 000	9 220 000	
Ecuador	12 562 000	278 000	
France	58 978 000	546 000	
Netherlands	15 808 000	34 000	
United States	272 640 000	9 159 000	

- a) Calculate the population density (population/km<sup>2</sup>) for each country listed. Show your thinking below, then record the values in the table rounded to the nearest hundredth.

- b) List the countries in order from greatest density to least density.

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- c) Is population density a rate? **Yes No** Explain.

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