

Name: _____

Date: _____

2.1

Two-Term and Three-Term Ratios

MathLinks 8, pages 46–54

Key Ideas Review

1. Decide whether each of the following statements is true or false. Circle the word *True* or *False*. If the statement is false, rewrite it to make it true.

a) **True/False** A part-to-part ratio compares different parts of several groups.

b) **True/False** A part-to-whole ratio compares one part of a group to the whole group.

c) **True/False** A part-to-part ratio can be written as a fraction, decimal, or percent. For example, the ratio of flowers to leaves is $\frac{\square}{12}$ or $\frac{\square}{3}$, _____, or _____%.



d) **True/False** A three-term ratio compares three quantities measured in the same units.

e) **True/False** A two-term ratio compares two quantities measured in the same scale.

Practise and Apply

2. Write each ratio using ratio notation. Then, write the ratios in lowest terms.

a) Three red tiles compared to nine black tiles.

b) In a hotel, 23 rooms have a double bed and 9 have a queen-size bed. What is the ratio of double beds to queen-size beds to total beds?

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- c) A bike rack contains 5 road bikes and 15 mountain bikes.
- d) Over two weeks, eight days were cloudy and six were sunny.



- e) The arena schedule lists 10 hockey games, 8 skating classes, and 2 family times. Compare hockey games to total time slots.
- f) The room has 16 chairs and 4 tables. Compare chairs to pieces of furniture.

3. Fill in the missing number to make each fraction equivalent.

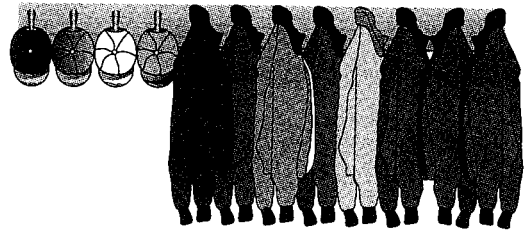
a) $\frac{1}{3} = \frac{\boxed{}}{6}$ b) $\frac{\boxed{}}{3} = \frac{10}{15}$

c) $\frac{5}{6} = \frac{\boxed{}}{12}$ d) $\frac{40}{50} = \frac{80}{\boxed{}}$

4. There are 9 black tiles to 3 white tiles.

- a) Draw the ratio.
- b) Write the part-to-part ratio that corresponds with the drawing.
- c) Write two part-to-whole ratios that correspond with the drawing.
- d) Write the ratios in part c) as equivalent fractions in lowest terms.

5. What part(s) of this diagram could be represented by each of the following ratios?



- a) 1 to 2
- b) 8 : 12 : 4
- c) 3 : 2
- d) $\frac{12}{24}$
6. In a class of 28 students, 20 took band and the rest took choir. Use ratio notation to answer the following.
- a) What is the ratio of choir members to total students in the class?
- b) What is the ratio of band members to choir members?
7. A mixed cereal contains 150 g of rice, 300 g of wheat, and 400 g of oats. Write the ratio in decimal form to compare the types of grains in the cereal. Show your thinking and round the decimals to the nearest hundredth.