

**Lesson Summary**

Recall the description:

Two ratios  $A:B$  and  $C:D$  are *equivalent ratios* if there is a positive number,  $c$ , such that  $C = cA$  and  $D = cB$ . For example, two ratios are equivalent if they both have values that are equal.

Ratios are equivalent if there is a positive number that can be multiplied by both quantities in one ratio to equal the corresponding quantities in the second ratio.

This description can be used to determine whether two ratios are equivalent.

**Problem Set**

1. Use diagrams or the description of equivalent ratios to show that the ratios 2:3, 4:6, and 8:12 are equivalent.
2. Prove that 3:8 is equivalent to 12:32.
  - a. Use diagrams to support your answer.
  - b. Use the description of equivalent ratios to support your answer.
3. The ratio of Isabella's money to Shane's money is 3:11. If Isabella has \$33, how much money do Shane and Isabella have together? Use diagrams to illustrate your answer.