

2 Math Support**Calculating Ratios**

A ratio is a comparison of two quantities. A ratio can be expressed using any one of the forms:

$$a : b \quad a \text{ to } b \quad a \setminus b$$

SAMPLE PROBLEM

A fruit salad requires 6 cups of diced apples and 8 cups of chopped oranges. Express the ratio of apples to oranges in simplest form.

cups of apples: 6

cups of oranges: 8

ratio of apples to oranges: 6 : 8 6 to 8 6\8

Both 6 and 8 are divisible by 2: $6 \div 2 = 3$ $8 \div 2 = 4$

Each ratio in simplest form is: 3 : 4 3 to 4 3\4

EXERCISES

Express each ratio in two different ways in simplest form.

1. $9 \setminus 12$ _____ 2. $8 : 12$ _____

3. 45 to 55 _____ 4. 56 to 72 _____

Solve each problem. Express each ratio in simplest form.

5. One particular molecule contains 18 atoms of carbon and 9 atoms of hydrogen. What is the ratio of carbon atoms to hydrogen atoms?

carbon atoms: _____

hydrogen atoms: _____

ratio of carbon to hydrogen atoms:

both numbers divisible by: _____

simplest form of ratio: _____

6. Walt collects baseball and football cards. He has 27 baseball cards and 36 football cards. What is the ratio of baseball cards to football cards?

baseball cards: _____

football cards: _____

ratio of baseball cards to football cards:

both numbers divisible by: _____

simplest form of ratio: _____