

1/28/10

Objective:

**TSWBAT write
ratios.**



Vocabulary

ratio: a comparison of two numbers by division.

equal ratio: two ratios that name the same number.

Ways to Write a Ratio

| statement | in words | with a symbol | as a fraction |
|--|----------|---------------|---------------|
| 6 cups of party mix and 2 cups of pretzels | 6 to 2 | 6:2 | $\frac{6}{2}$ |

Party Mix Recipe

4 cups cereal

2 cups pretzels

3 tbsp Worcestershire sauce

Use the recipe above to write each ratio in three ways.

1. amount of cereal to amount of pretzels.

4:2, 4 to 2, $\frac{4}{2}$

2. amount of cereal to amount of party mix.

4:6, 4 to 6, $\frac{4}{6}$

3. amount of pretzels to amount of cereal.

2:4, 2 to 4, $\frac{2}{4}$

4. amount of pretzels to amount of party mix.

2:6, 2 to 6, $\frac{2}{6}$

Writing Equal Ratios

To write equal ratios either multiply or divide each number by the same number.

divide each term by 2

$$\begin{array}{c} 4:6 \\ \div 2 \quad \div 2 \\ 2:3 \end{array}$$

multiply each term by 3

$$\begin{array}{c} 4:6 \\ \times 3 \quad \times 3 \\ 12:18 \end{array}$$

Examples:

Write two equal ratios for each ratio.

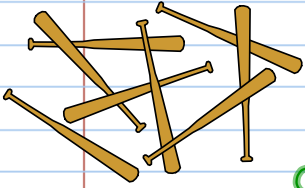
1. $\frac{10}{35}$ $\frac{2}{7}$, $\frac{20}{70}$

2. $12:3$
 $24:6$
 $4:1$

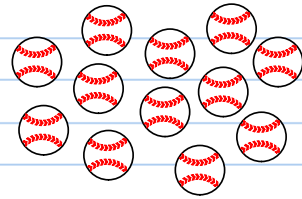
3. 8 to 22
4 to 11
16 to 44

Ratios in Simplest Form

To write ratios in simplest form reduce as you would a fraction.



There are 8 bats and 12 balls.



$$\frac{8}{12} = \frac{2}{3}$$

The fraction $\frac{8}{12}$ is shown with a blue $\div 4$ above the 8 and a green $\div 4$ below the 12. The simplified fraction $\frac{2}{3}$ is shown to the right.

Examples:

Write each ratio in simplest form.

1. 4:20 1:5
 $\div 4$

2. 50 to 45 10:9
 $\div 5$

3. $\frac{39}{3} \div 3 = \frac{13}{1}$

Practice:

A drama club sells 35 student tickets, 24 adult tickets, and 11 senior citizen tickets.

Write each ratio in three different ways.

1. student tickets to adult tickets.
2. adult tickets to senior citizen tickets.

Write two different ratios equal to each ratio.

3. 6 to 18

4. $\frac{4}{14}$

5. 8:10

Write each ratio in simplest form.

6. $\frac{6}{15}$

7. 40:30

8. 42 to 50

Find the value that makes each ratio equal.

9. 6 to 9, to 3

10. 10:1, :70

Homework

Practice

6-1

