

Guided Practice

Write each ratio as a fraction in simplest form. Then explain its meaning. (Example 1)

1. $\frac{3}{4}$; For every 3 pens, there are 4 pencils.

Show your work.



pens to pencils

2. $\frac{1}{3}$; For every penny, there are 3 dimes.




pennies:dimes

3. Last month, Ed ate 9 apples, 5 bananas, 4 peaches, and 7 oranges. Find the ratio of bananas to the total number of fruit. Then explain its meaning. (Examples 2 and 3)

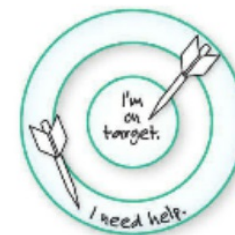
$\frac{1}{5}$, 1 to 5, or 1:5; One out of every 5 pieces of fruit Ed ate was a banana.

4. Divide 28 cans of soda into two groups so the ratio is 3 to 4. (Example 4) 12 in the first group and 16 in the second group

5.  **Building on the Essential Question** How can you use mental math to determine if a ratio is simplified?
Sample answer: If the fraction is in simplest form, the GCF of the numerator and the denominator is 1.

Rate Yourself!

How confident are you about ratios? Shade the target on the target.



For more help, go online to access a Personal Tutor.



Name _____ My Homework _____

Independent Practice

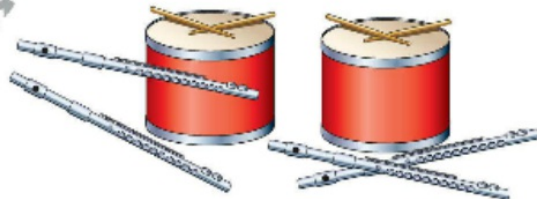
Go online for Step-by-Step Solutions



Write each ratio as a fraction in simplest form. Then explain its meaning. (Example 1)

1. $\frac{2}{1}$; For every 2 flutes, there is 1 drum.

Show your work



flutes:drums

2. $\frac{2}{5}$; For every 2 sandwiches, there are 5 milk cartons.



sandwiches to milk cartons

3. A class has 6 boys and 15 girls. What is the ratio of boys to girls?

(Example 2) $\frac{2}{5}$; For every 2 boys, there are 5 girls in the class.

4. The table shows the number of books Salvador has read. Find the ratio of mystery books to the total. Explain its meaning. (Example 3)

$\frac{5}{12}$; 5 to 12, or 5:12; 5 out of every 12 books were mysteries.

Type	Number of Books
Mystery	10
Nonfiction	7
Science Fiction	5
Western	2

5. Divide 33 photos into two groups so the ratio is 4 to 7. (Example 4)

12 photos in the first group and 21 photos in the second group

6. **MP Model with Mathematics** Refer to the graphic novel frame below for Exercises a–b.



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6. **MP Model with Mathematics** Refer to the graphic novel frame below for Exercises a–b.



a. For each store, what is the ratio of the number of cans to the price?
 Super Saver: $\frac{24}{\$5}$; Shop Smart: $\frac{16}{\$3}$; Price Busters: $\frac{4}{\$1}$

b. What would be the ratio of the number of cans to the price at Super Saver and Price Busters if a coupon for \$1 off the total purchase is used?
 Super Saver: $\frac{16}{\$3}$; Price Busters: $\frac{9}{\$2}$

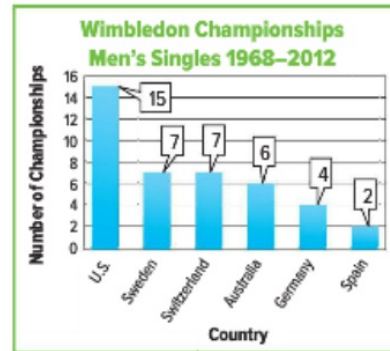
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7 MP Use Math Tools The graph shows the number of Wimbledon championships of several countries.

- a. Write the ratio that compares the championships won by Australia to the total number won by the United States in simplest form. Then explain its meaning.

$\frac{2}{5}$, 2 to 5, or 2:5; From 1968-2012, for every 2

championships won by Australia, the United States has won 5.



- b. Write the ratio that compares the championships won by Australia to the total number of championships. Then explain its meaning.

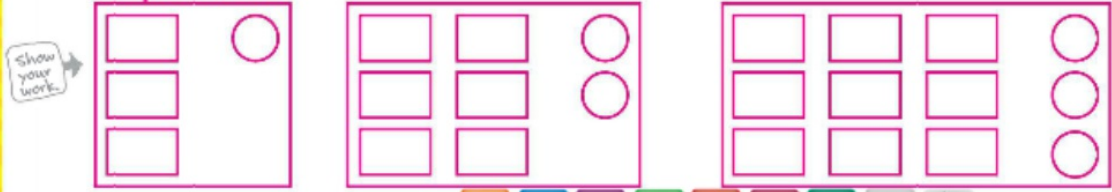
$\frac{6}{41}$, 6 to 41, or 6:41; Between 1968 and 2012, the Australians have

won 6 of the 41 championships.

H.O.T. Problems Higher Order Thinking

8. **MP Model with Mathematics** Create three different drawings showing a number of rectangles and circles in which the ratio of rectangles to circles is 3:1.

Sample answer:



Show your work

Glossary

Index

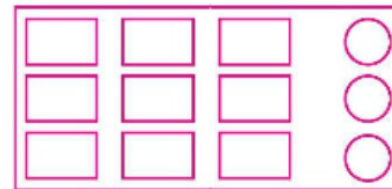
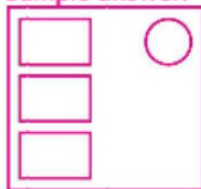
Answers: On Off



H.O.T. Problems Higher Order Thinking

8. **MP Model with Mathematics** Create three different drawings showing a number of rectangles and circles in which the ratio of rectangles to circles is 3:1.

Sample answer:



9. **MP Persevere with Problems** Find the missing number in the following pattern. Explain your reasoning.

12, 24, 72, 288,

The ratios are 1:2, 1:3, 1:4, and 1:5.

10. **MP Persevere with Problems** The table shows how Levon spends his time at the gym. Over the course of a week, he wants to spend 600 minutes at the gym. How much more time will he spend lifting weights than on the treadmill? Explain your reasoning.

Activity	Time (min)
Treadmill	25
Lifting weights	35

100 min; He spends 60 minutes on the treadmill and lifting weights.

The ratio of time he spends on the treadmill is 25:60 or 250:600. So,

he will spend 250 minutes on the treadmill and 350 minutes lifting

weights. He will spend 350 – 250 or 100 more minutes.