

Warm up Grade 6

Date: Jan 16

Chapter 5  
Lesson 4 Day 2

Example: There are 5 pups, 2 are boys, and 3 are girls



Part-to-Part:

The ratio of boys to girls is 2:3 or  $\frac{2}{3}$

The ratio of girls to boys is 3:2 or  $\frac{3}{2}$

Part-to-Whole:

The ratio of boys to **all** pups is 2:5 or  $\frac{2}{5}$

The ratio of girls to **all** pups is 3:5 or  $\frac{3}{5}$

✓  
✗  
✗  
✓ ✓  
✓ ✓

**Practice**

1 Write each ratio 2 ways.

a) apples to pears



Apples to Pear

4 to 3

4 : 3

b) caps to scarves



Hats to Scarves

5 to 6

5 : 6

c) roses to daisies



Roses to Daisies

1 to 4

1 : 4

2 Write a ratio to show the numbers of:

a) ladybugs to ants

b) ants to ladybugs

c) ladybugs to insects

d) ants to insects



a) Ladybugs to ants

3 : 7

b) Ants to Ladybugs

7 : 3

c) Ladybugs to insects

3 : 10

d) Ants to Insects

7 : 10

3. Write each ratio in as many ways as you can.

a) red marbles to green marbles

b) green marbles to all the marbles

c) green marbles to red marbles

d) red marbles to all the marbles



a) Red: Green

10 : 4

b) Green : All

4 : 14

c) Green: Red

4 : 10

d) Red : All

10 : 14

4. Ms. Zsabo has 13 girls and 11 boys in her class.

Write each ratio.

a) girls to boys

c) boys to students

b) boys to girls

d) girls to students

a) G : B

13: 11

b) B : G

11: 13

c) B : Stu

11: 24

d) G : Stu

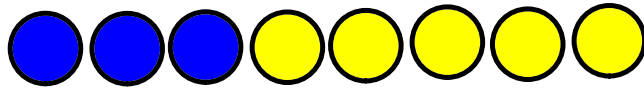
13: 24

5. What is being compared in each ratio?  
 a) 3:4 Cats: Dogs    b)  $\frac{4}{7}$  Dogs: Pets  
 c) 3 to 7 Cats: Pets    d) 4:3 Dogs: Cats



### 3 to 5

6. Use counters to model the ratio 3:5 in 2 different ways.  
 Draw diagrams to record your work.  
 Explain each diagram.



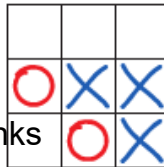
Blue : whole

3: 8

Yellow : whole

5: 8

7. Write 4 different ratios for this picture.  
 Explain what each ratio compares.



X:O

O:X

X: Total blanks

O: Total blanks

3:2

2:3

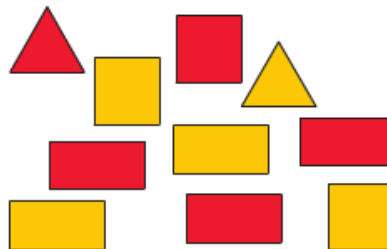
3: 9

2: 9

8. A penny can show heads or tails.  
 Place 10 pennies in a cup. Shake and spill.  
 Write as many ratios as you can for the pennies.

9. Write a ratio to show the numbers of:

- a) triangles to squares 2:3  
 b) squares to rectangles 3:4  
 c) triangles to all shapes 2:10  
 d) red shapes to yellow shapes 5:5  
 e) yellow triangles to yellow rectangles 1:2  
 f) red triangles to yellow squares 1:2





10. Write as many ratios as you can for the trail mix recipe.  
Explain what each ratio compares.



Raisins: nuts: papaya: Seeds

1 : 3 : 2 : 1

11. Use 11 counters to show each ratio.  
Sketch counters to record your work.

a) 5:6

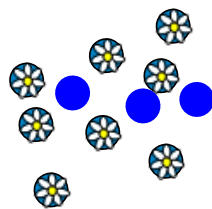
b) 8 to 3

c)  $\frac{2}{11}$

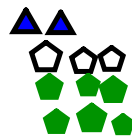
d) 6:11



stars: face



Flower: Rainbow



Triangle: all shapes

Green Pentagons: all shapes



1. What is the ratio of skidoo's to four wheelers?

S:FW  
4:3

2. What is the ratio of four wheelers to skidoo's?

F:S  
3:4

3. What is the ratio of skidoo's to all the vehicles?

S:V  
4:7

4. What is the ratio of four wheelers to all vehicles?

F:V  
3:7



What is being compared in each ratio?

1. 8 : 4

Size of Pizza : Burgers

2. 8 : 12

pizza : whole

3. 4 : 12

H: whole

4. 4 : 8

Ham to pizza  
4                      8

# Equivalent Fraction

↳  $\times$  or  $\div$  both top and bottom by the same #

When you divide it is reducing

Ex)  $\frac{45}{40} \div 5 = \frac{9}{8}$

Ex)  $\frac{3}{5} \times 5 = \frac{15}{25}$        $\frac{5}{5} = 1$

Add to you notes   
  $\rightarrow$  divide both top & bottom by same #   
  $\frac{7}{1 \times 7}$

Reduce the following fractions

a)  $\frac{12}{27} \div 3 = \frac{4}{9}$       b)  $\frac{1}{14} \div 7 = \frac{1}{2}$       d)  $\frac{20}{28}$

c)  $\frac{20}{28} \div 2 = \frac{10}{14} \div 2 = \frac{5}{7}$

$\frac{20}{28} \div 4 = \frac{5}{7}$

## Reducing Ratios

Similar to reducing fractions

Dogs: Cats

$$\begin{array}{c} 7 : 10 \\ \times 2 \rightarrow \underline{14} : \underline{20} \end{array}$$

Dentis : total Dent

$$\begin{array}{c} 1 : 5 \\ \times 20 \rightarrow \underline{20} : 100 \end{array}$$



If this is understood move onto next lesson

Class / Homework  
page 178 - 179

#3)

#4)

#6

#7

#11

\* Sheets (Slide 11 & 12)



**Practice**

1. Write each ratio 2 ways.

a) apples to pears



b) caps to scarves



c) roses to daisies



2. Write a ratio to show the numbers of:

a) ladybugs to ants

b) ants to ladybugs

c) ladybugs to insects

d) ants to insects



3. Write each ratio in as many ways as you can.

a) red marbles to green marbles

b) green marbles to all the marbles

c) green marbles to red marbles

d) red marbles to all the marbles



4. Ms. Zsabo has 13 girls and 11 boys in her class.

Write each ratio.

a) girls to boys

b) boys to girls

c) boys to students

d) girls to students

5. What is being compared in each ratio?

- a) 3:4
- b)  $\frac{4}{7}$
- c) 3 to 7
- d) 4:3



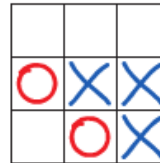
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Draw diagrams to record your work.

Explain each diagram.

7. Write 4 different ratios for this picture.

Explain what each ratio compares.



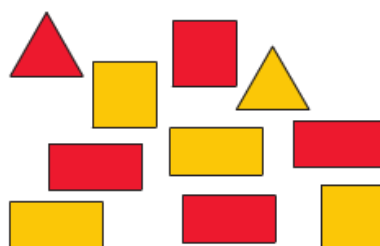
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9. Write a ratio to show the numbers of:

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- b) squares to rectangles
- c) triangles to all shapes
- d) red shapes to yellow shapes
- e) yellow triangles to yellow rectangles
- f) red triangles to yellow squares





10. Write as many ratios as you can for the trail mix recipe.  
Explain what each ratio compares.



11. Use 11 counters to show each ratio.  
Sketch counters to record your work.

a) 5:6

b) 8 to 3

c)  $\frac{2}{11}$

d) 6:11

Name : \_\_\_\_\_ Score : \_\_\_\_\_

**Ratio In Three Ways: Part to Part**

Sheet 1

Write the ratio in three different ways.

1) Books to pens



Words : \_\_\_\_\_

Ratio : \_\_\_\_\_

Fraction : \_\_\_\_\_

2) Pumpkins to cabbages



Words : \_\_\_\_\_

Ratio : \_\_\_\_\_

Fraction : \_\_\_\_\_

3) Spiders to ladybugs



Words : \_\_\_\_\_

Ratio : \_\_\_\_\_

Fraction : \_\_\_\_\_

4) Apples to mangosteens



Words : \_\_\_\_\_

Ratio : \_\_\_\_\_

Fraction : \_\_\_\_\_

5) Snow cones to chocolates



Words : \_\_\_\_\_

Ratio : \_\_\_\_\_

Fraction : \_\_\_\_\_

Name : \_\_\_\_\_ Score : \_\_\_\_\_

**Ratio: Part to Part**

Level 1: 51



The ratio of to =



The ratio of to =



The ratio of to =



The ratio of to =



The ratio of to =

Name : \_\_\_\_\_ Score : \_\_\_\_\_

Teacher : \_\_\_\_\_ Date : \_\_\_\_\_

**Find the Ratios**

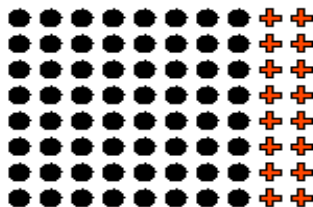


What is the ratio of \_\_\_\_\_ Simplified

♥ to + ? = \_\_\_\_\_ : \_\_\_\_\_ = \_\_\_\_\_ : \_\_\_\_\_

What is the ratio of \_\_\_\_\_

+ to ( ♥ + + ) ? = \_\_\_\_\_ : \_\_\_\_\_ = \_\_\_\_\_ : \_\_\_\_\_



What is the ratio of \_\_\_\_\_ Simplified

● to + ? = \_\_\_\_\_ : \_\_\_\_\_ = \_\_\_\_\_ : \_\_\_\_\_

What is the ratio of \_\_\_\_\_

+ to ( ● + + ) ? = \_\_\_\_\_ : \_\_\_\_\_ = \_\_\_\_\_ : \_\_\_\_\_



What is the ratio of \_\_\_\_\_ Simplified

◆ to ▲ ? = \_\_\_\_\_ : \_\_\_\_\_ = \_\_\_\_\_ : \_\_\_\_\_

What is the ratio of \_\_\_\_\_

▲ to ( ◆ + ▲ ) ? = \_\_\_\_\_ : \_\_\_\_\_ = \_\_\_\_\_ : \_\_\_\_\_



What is the ratio of \_\_\_\_\_ Simplified

+ to ● ? = \_\_\_\_\_ : \_\_\_\_\_ = \_\_\_\_\_ : \_\_\_\_\_

What is the ratio of \_\_\_\_\_

● to ( + + ● ) ? = \_\_\_\_\_ : \_\_\_\_\_ = \_\_\_\_\_ : \_\_\_\_\_

