Sixth Grade
Math Vocabulary
SOL 6.2 – Ratios

1. **Equivalent Ratios**: Ratios that make the same comparisons.

Examples:

$\frac{5}{9} = \frac{10}{18}$ 5:9 = 10:18

2. **Rate:** A ratio that compares two quantities having different units of measure.

Example:

rate: $\frac{\text{price}}{\text{number of ounces}} \rightarrow \frac{\$3.28}{20 \text{ oz}}$

3. **Ratio:** A comparison of two numbers or quantities.

4. **Proportion:** A number sentence or an equation that states that two ratios are equivalent.

Example:

$\frac{3}{4} = \frac{6}{8}$

5. **Unit Rate:** A rate in which the second term is 1.

Example:

rate: $\frac{\text{price}}{\text{number of ounces}} \rightarrow \frac{\$3.28}{20 \text{ oz}}$

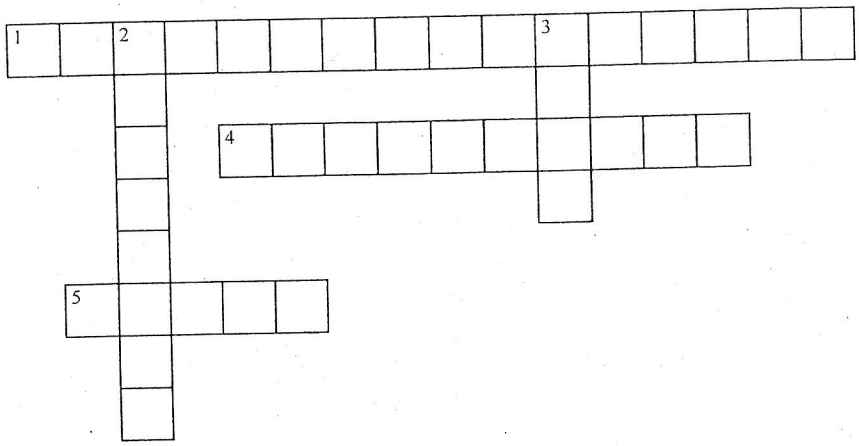
unit rate: $\frac{\$3.28}{20 \text{ oz}} = \frac{\$3.28 \div 20}{20 \text{ oz} \div 20} = \frac{\$0.16}{1 \text{ oz}}$

Name: _____ Number: _____

Date: _____

Vocabulary – Crossword

SOL 6.2 – Ratios



ACROSS

1 Ratios that make the same comparisons.

4 A number sentence or an equation that states that two ratios are equivalent.

5 A comparison of two numbers or quantities.

DOWN

2 A rate in which the second term is 1.

3 A ratio that compares two quantities having different units of measure.

Name _____
Date _____
Class Period _____

S.O.L. 6.2
Vocabulary Quiz

Equivalent Ratios Rate Ratio Unit Rate Proportion

1. _____ A number sentence or an equation that states two ratios are equivalent.

2. _____ A comparison of two numbers or quantities.

3. _____ Ratios that make the same comparisons.

4. _____ A rate in which the second term is 1.

5. _____ A ratio that compares two quantities having different units of measure.

Name _____ Date _____ Class 1 2 3 5 6

6.2 Who Am I
Vocabulary Quiz

Ratio Unit Rate Proportion Equivalent Ratio Rate

1. I am a comparison of two numbers or quantities by division. I can be written in three different ways. Who am I? _____

2. I am a number sentence or an equation that states two ratios are equivalent. You didn't talk about me as much but I can help you find the missing value. Who am I? _____

3. I am a ratio that makes the same comparisons. You can multiply or divide me and get three equal answers. Who am I? _____

4. I am a comparison of two quantities that have different units of measures. Who am I? _____

5. I am a type of rate in which the second term will always be 1. You have to divide each of my terms. Who am I? _____.

Name:_____ Date:_____

6.2 Ratios Tutorial Worksheet

Directions: As you watch the tutorial video, fill in the blanks for questions 1-7.

1. A ratio is a _____ between two items.

2. There are 3 ways to write a ratio:

4 to 15 $\frac{4}{15}$ 4:15

Ratios are always spoken in the same way no matter how they are written. We say "_____" between the numbers.

There are 8 boys and 12 girls in a class.

3. What is the ratio of boys to girls?

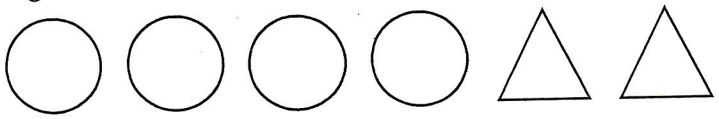
$\frac{8}{12}$ reduce = ___

4. What is the ratio of girls to the total number of students?

$\frac{\text{\# of girls}}{\text{total students}}$ $\frac{8}{(8+12)}$ = ___ (reduce) = ___

5. When you write ratios, it is ok to leave it as an _____ fraction.

6. What is the ratio of circles to triangles?



_____

7. The item that is asked for first is written _____. The item asked for second is written second.

Once the tutorial is complete, try problems 1- 6 on your own.

1. Mrs. Johnson's class has 9 girls and 13 boys.

Write your answers in fraction form.

What is the ratio of boys to girls? _____

What is the ratio of boys to the whole class? _____

2. Suzie has 4 pet fish and 2 pet turtles.

Write your answers in fraction form.

What is the ratio of fish to turtles? _____

What is the ratio of fish to total pets? _____

3. Mr. Smith has 8 markers and 6 colored pencils to use for drawing his poster.

What is the ratio of markers to colored pencils?

_____ : _____

What is the ratio of colored pencils to total drawing tools?

_____ : _____

4. Billy's mom brought candy for Billy and his friends. She has 15 tootsie rolls and 5 lollipops.

What is the ratio of lollipops to tootsie rolls?

_____ : _____

What is the ratio of lollipops to total candy?

_____ : _____

5. Write in ratio form.

17 to 9

_____ : _____

6. Write the ratio as a fraction.

8 : 14

_____

Lesson 10-1

Example 1 Write a Ratio in Simplest Form

MARBLES A collection of marbles has 8 blue marbles and 6 green marbles. Write the ratio that compares the number of blue marbles to the number of green marbles.

blue marbles → $\frac{8}{6} = \frac{8 \div 2}{6 \div 2} = \frac{4}{3}$ ← The GCF of 8 and 6 is 2.
green marbles →

The ratio of blue marbles to green marbles is $\frac{4}{3}$, 4 to 3, or 4:3.

For every 4 blue marbles, there are 3 green marbles.

Example 2 Use Ratios to Compare Parts of a Whole

BALLS A large bin of balls in the equipment room of the gym contains 20 balls, 5 of which are soccer balls. Write the ratio that compares the number of soccer balls to the total number of balls.

soccer balls → $\frac{5}{20} = \frac{5 \div 5}{20 \div 5} = \frac{1}{4}$ ← The GCF of 5 and 20 is 5.
total balls →

The ratio of soccer balls to the total number of balls is $\frac{1}{4}$, 1 to 4, or 1:4.

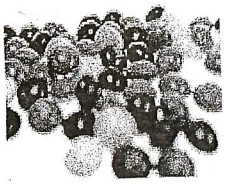
For every one soccer ball, there are four total balls.

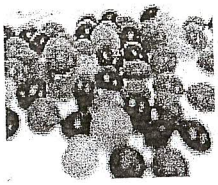
Example 3 Find Unit Rate

CEREAL A 16-ounce box of cereal is priced at $3.68. Find the cost per ounce.

$\frac{\$3.68}{16 \text{ ounces}} = \frac{\$3.68 \div 16}{16 \text{ ounces} \div 16} = \frac{\$0.23}{1 \text{ ounce}}$ Divide the numerator and denominator by 16.

So, the cost of one ounce of the cereal is $0.23.





The Skittle Sort Activity

Name _____

Class Period _____

Date _____

Skittle Flavors	Number of Skittles
Grape (purple)	
Lemon (yellow)	
Orange (orange)	
Strawberry (red)	
Lime (green)	

Sort the Skittles into the correct category. Write the ratio in three ways.

1. **Grape to Lemon** _____ _____ _____

   Grape to Orange _____ _____ _____

   Grape to Strawberry _____ _____ _____

   Grape to Lime _____ _____ _____

2. **Lemon to Grape** _____ _____ _____

   Lemon to Orange _____ _____ _____

   Lemon to Strawberry _____ _____ _____

   Lemon to Lime _____ _____ _____

3. **Orange to Grape** _____ _____ _____

   Orange to Lemon _____ _____ _____

   Orange to Strawberry _____ _____ _____

   Orange to Lime _____ _____ _____

Name _____ Date _____ Class _____

LESSON 7-1

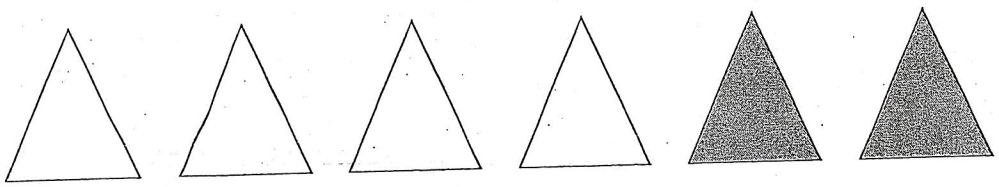
Practice A

Ratios and Rates

Use the table to write each ratio.

Caroline's Pet Fish	
Tiger Barbs	5
Catfish	1
Angel fish	4
Red-tail sharks	1
Clown loaches	3

1. angel fish to tiger barbs _____
2. red-tail sharks to clown loaches _____
3. catfish to angel fish _____
4. clown loaches to tiger barbs _____
5. catfish to red-tail sharks _____
6. Write three equivalent ratios to compare the number of black triangles in the picture with the total number of triangles. _____



Use the table to write each ratio.

Caroline's Kittens		
	White	Gray
Male	3	2
Female	5	5

7. gray male kittens to gray female kittens _____
8. white female kittens to white male kittens _____
9. A candy store sells 2 ounces of chocolate for $0.80 and 3 ounces of chocolate for $0.90. How much does the store charge per ounce for the 2 ounces of chocolate? How much does the store charge per ounce for the 3 ounces of chocolate? Which is the better deal? _____

Name _____ Date _____ Class _____

LESSON 7-1

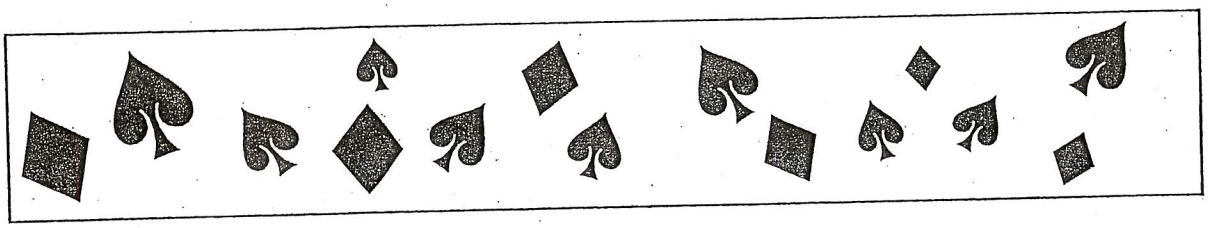
Practice B

Ratios and Rates

Use the table to write each ratio.

Animals in the Zoo	
Elephants	12
Giraffes	8
Lions	9
Seals	10
Otters	16

1. lions to elephants _____
2. giraffes to otters _____
3. lions to seals _____
4. seals to elephants _____
5. elephants to lions _____
6. Write three equivalent ratios to compare the number of diamonds with the number of spades in the box. _____



Use the table to write each ratio as a fraction.

Baseball Team Stats		
	Titans	**Orioles**
Wins	12	9
Losses	14	15

7. Titans wins to Titans losses _____
8. Orioles losses to Orioles wins _____
9. Titans losses to Orioles losses _____
10. Orioles wins to Titans wins _____
11. A 6-ounce bag of raisins costs $2.46. An 8-ounce bag of raisins costs $3.20. Which is the better deal? _____
12. Barry earns $36.00 for 6 hours of yard work. Henry earns $24.00 for 3 hours of yard work. Who has the better hourly rate of pay? _____

LESSON 7-1

Ratios and Rates

Lesson Objectives

Write ratios and rates and find unit rates

Vocabulary

ratio (p. 352) _____

_____

equivalent ratios (p. 352) _____

_____

rate (p. 353) _____

_____

unit rate (p. 353) _____

_____

Additional Examples

Example 1

Use the table to write each ratio.

Animals at the Vet	
Cats	5
Dogs	7
Rabbits	2

A. cats to rabbits

_____ or _____ or _____ ____ to ____

B. dogs to total number of pets

_____ or _____ or _____ ____ to ____

C. total number of pets to cats

_____ or _____ or _____ ____ to ____

NAME _____ DATE _____ PERIOD ____

10-1 Practice: Skills

Ratios

Write each ratio as a fraction in simplest form.

1. 3 sailboats to 6 motorboats

2. 4 tulips to 9 daffodils

3. 5 baseballs to 25 softballs

4. 2 days out of 8 days

5. 6 poodles out of 18 dogs

6. 10 yellow eggs out of 12 colored eggs

7. 12 sheets of paper out of 28

8. 18 hours out of 24 hours

9. 16 elms out of 20 trees

10. 15 trumpets to 9 trombones

11. 5 ducks to 30 geese

12. 14 lions to 10 tigers

13. 6 sodas out of 16 drinks

14. 20 blue jays out of 35 birds

Write each ratio as a unit rate.

15. 14 hours in 2 weeks

16. 36 pieces of candy for 6 children

17. 8 teaspoons for 4 cups

18. 8 tomatoes for $2

19. $28 for 4 hours

20. 150 miles in 3 hours

21. $18 for 3 CDs

22. 48 logs on 6 trucks

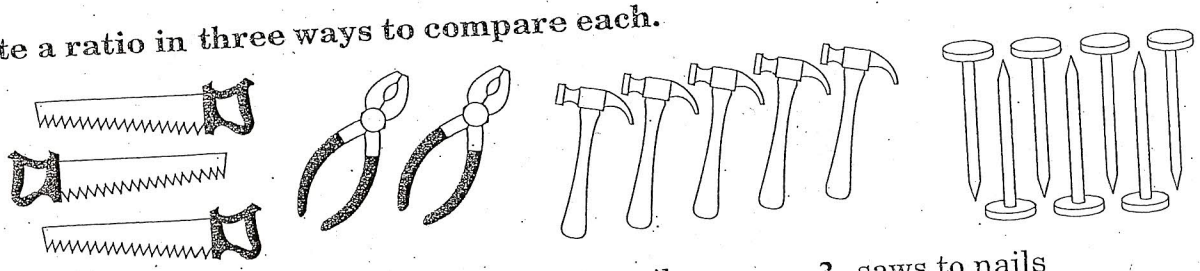
23. Write the ratio *21 wins to 9 losses* as a fraction in simplest form.

24. Write the ratio *$12 dollars for 3 tickets* as a unit rate.

Name _____ Class _____ Date _____

Practice 7-1 Exploring Ratios

Write a ratio in three ways to compare each.



1. saws to pliers

_____

2. hammers to nails

_____

3. saws to nails

_____

4. nails to saws

_____

5. hammers to pliers

_____

6. pliers to saws

_____

7. pliers to nails

_____

8. saws to hammers

_____

9. nails to hammers

_____

Draw a picture to represent each ratio.

10. 7 baseballs : 1 bat

11. 3 CDs to 8 books

12. $\frac{\text{2 c blueberries}}{\text{3 c cream}}$

13. In Tanya's family, 6 out of 15 people have blue eyes. What is the ratio of those who have blue eyes to those who do not? _____

14. In Fred's class, 8 of the 21 students earned a grade of B or better. What is the ratio of students who did not earn at least a B to those who did? _____

15. In Todd's class, 14 of the students own cats and 9 of the students own dogs. What is the ratio of dog owners to cat owners? _____

16. In Markita's class, there are 15 boys and 12 girls. Write the ratio that represents the number of girls to the number of boys.

_____

Name _____ Date _____ Class _____

LESSON 7-1

Reteach

Ratios and Rates

A ratio is a comparison of two quantities by division.

To compare the number of times vowels are used to the number of time consonants are used in the word "mathematics," first find each quantity.

Number of times vowels are used: 4
Number of times consonants are used: 7

Then write the comparison as a ratio, using the quantities in the same order as they appear in the word expression. There are three ways to write a ratio.

$\frac{4}{7}$ 4 to 7 4:7

Write each ratio.

1. days in May to days in a year

_____

2. sides of triangle to sides of a square

_____

Equivalent ratios are ratios that name the same comparison.

The ratio of inches in a foot to inches in a yard is $\frac{12}{36}$. To find equivalent ratios, divide or multiply the numerator and denominator by the same number.

$\frac{12}{36} = \frac{12 \div 3}{36 \div 3} = \frac{4}{12}$ $\frac{12}{36} = \frac{12 \cdot 2}{36 \cdot 2} = \frac{24}{72}$

So, $\frac{12}{36}$, $\frac{4}{12}$, and $\frac{24}{72}$ are equivalent ratios.

Write three equivalent ratios to compare each of the following.

3. 8 triangles to 12 circles

_____

4. 20 pencils to 25 erasers

_____

5. 5 girls to 6 boys

_____

6. 10 pants to 14 shirts

_____

Name _____ Date _____ Class _____

LESSON 7-1

Reteach

Ratios and Rates (continued)

A rate is a comparison of two quantities that have different units of measure.

Suppose a bus travels 150 miles in 3 hours. The rate could be written as $\frac{150 \text{ miles}}{3 \text{ hours}}$.

When the second term of a rate is 1 unit, the rate is a unit rate.

To write $\frac{150 \text{ miles}}{3 \text{ hours}}$ hours as a unit rate, divide each term by 3.

$$\frac{150 \text{ miles}}{3 \text{ hours}} = \frac{150 \text{ miles} \div 3}{3 \text{ hours} \div 3} = \frac{50 \text{ miles}}{1 \text{ hour}}$$

The unit rate is $\frac{50 \text{ miles}}{\text{hour}}$.

Find each unit rate.

7. $\frac{40 \text{ books}}{2 \text{ shelves}}$ _____

8. $\frac{36 \text{ students}}{6 \text{ groups}}$ _____

9. $\frac{300 \text{ seconds}}{5 \text{ minutes}}$ _____

10. $\frac{54 \text{ miles}}{2 \text{ gallons}}$ _____

11. $\frac{4 \text{ miles}}{20 \text{ minutes}}$ _____

12. $\frac{\$1.29}{3 \text{ pounds}}$ _____

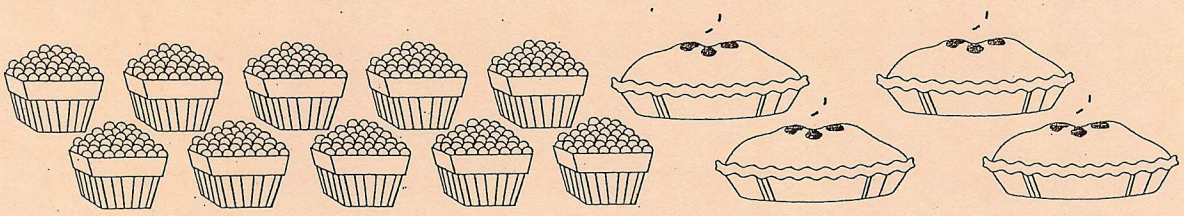
13. $\frac{72 \text{ hours}}{3 \text{ days}}$ _____

14. $\frac{42 \text{ trading cards}}{6 \text{ packs}}$ _____

Name _____ Class _____ Date _____

Reteaching 7-1 Exploring Ratios

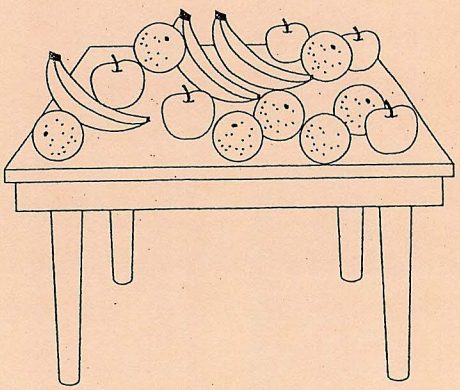
A **ratio** compares two numbers by division.



The ratio of 10 pints of blueberries to 4 blueberry pies can be written as "10 to 4" in three ways: 10 to 4 10 : 4 $\frac{10}{4}$

The ratio of 2 bushels of apples to 20 jars of applesauce can be written in three ways: 2 to 20 2 : 20 $\frac{2}{20}$

Use the picture. Write a ratio in three ways to compare each.



1. apples to oranges _____
2. apples to bananas _____
3. oranges to apples _____
4. bananas to oranges _____
5. oranges to bananas _____
6. bananas to apples _____

Write a ratio in three ways for each statement.

7. There are 60 tires for every 15 cars. _____
8. Use 5 teaspoons butter for every 3 teaspoons flour. _____
9. There are 21 girls and 28 boys in the class. _____
10. Make 24 tacos for every 8 plates. _____
11. There are 4 adults for every 19 children on the bus. _____

Try This

1. Use the table to write the ratio.

birds to total number of pets

Animals at the Vet	
Birds	6
Hamsters	9
Snakes	3

2. Write three equivalent ratios to compare the number of triangles to the number of hearts in the pattern.

3. A 3-pack of juice boxes costs $2.10. A 9-pack costs $5.58. Which is the better deal?

Name _____ Date _____

SOL 6.2 - Ratios

Marco's mother bought him a bag of blow pops from Wal*Mart. The chart below shows the flavors Marco found in the bag. Use this chart to answer questions 1-3.

Blow Pops

Flavor	Number of Blow Pops
Cherry	3
Grape	2
Watermelon	5
Green Apple	4

1. Based on the chart, what is the ratio of Grape to Green Apple Blow Pops?

A 2 to 4

B 2 to 5

C 4 to 2

D 3 to 4

2. What is the ratio of Cherry Blow Pops to the total number of Blow Pops in the bag?

A 3:5

B 3:14

C 14:3

D 5:3

3. What is the ratio of Green Apple to Watermelon Blow Pops?

A 4 to 3

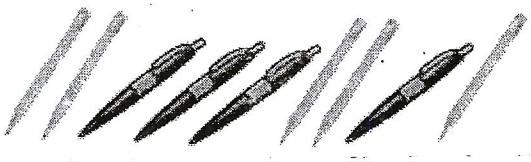
B 5 to 4

C 3 to 4

D 4 to 5

Name _____ Date _____

SOL 6.2 - Ratios



4. Based on the picture above, what is the ratio of pens to pencils?

A $\frac{5}{9}$

B $\frac{4}{9}$

C $\frac{4}{5}$

D $\frac{5}{4}$

5. City Auto Supply has lawnmowers for sale. They have 4 riding mowers and 7 push mowers. What is the ratio of push mowers to riding mowers?

A $\frac{7}{4}$

B $\frac{4}{11}$

C $\frac{4}{7}$

D $\frac{7}{11}$

Name _____ Date _____

SOL 6.2 - Ratios

1. **There are 15 blue socks and 12 white socks in a drawer. What is the ratio of white socks to blue socks?**

   A $\frac{15}{12}$ **B** $\frac{15}{27}$

   C $\frac{12}{27}$ **D** $\frac{12}{15}$

2. **John has 14 pennies and 10 dimes in his pocket. What is the ratio of pennies to dimes?**

   F 14:10 **G** 10:14

   H 10:24 **J** 14:24

3. **Jules' teacher gives out stars for good behavior. Jules has gotten 12 gold stars and 17 silver stars. What is the ratio of silver stars to gold stars?**

   A 17 to 12 **B** 12 to 29

   C 17 to 29 **D** 12 to 17

Student Birthdays

Month	Number of Students
January	3
February	5
March	4

4. **According to the table above, what is the ratio of the number of students that have birthdays in January to the number of students that have birthdays in March?**

   A 3:5 **B** 5:4

   C 3:4 **D** 4:3

Name _____ Date _____

SOL 6.2 - Ratios

Student Birthdays

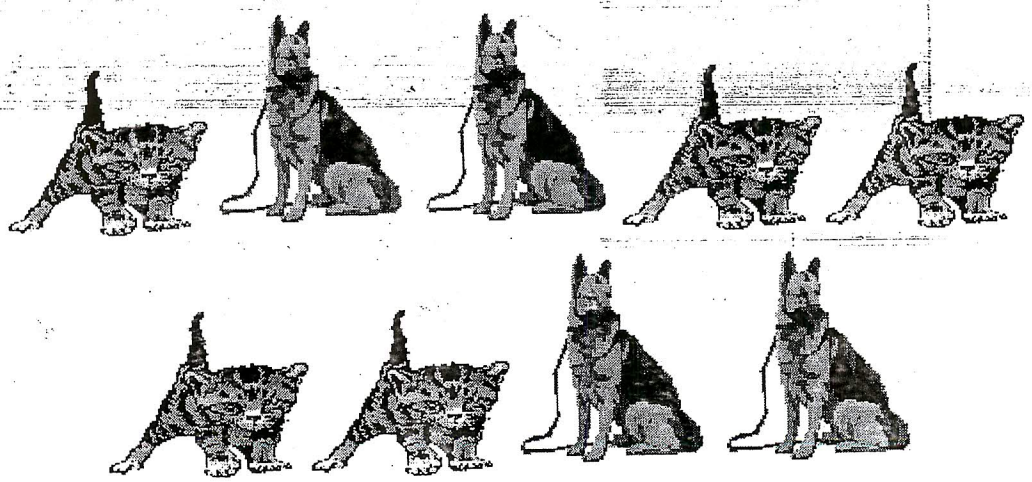
Month	Number of Students
January	3
February	5
March	4

5. According to the table above, what is the ratio of the number of students that have birthdays in February to the number of students that have birthdays in January?

A $\frac{3}{5}$ **B** $\frac{5}{8}$

C $\frac{5}{3}$ **D** $\frac{3}{8}$

6. The picture below shows the number of dogs and cats in the animal shelter in Emporia.



Based on this picture, what is the ratio of the number of dogs to the number of cats in the shelter?

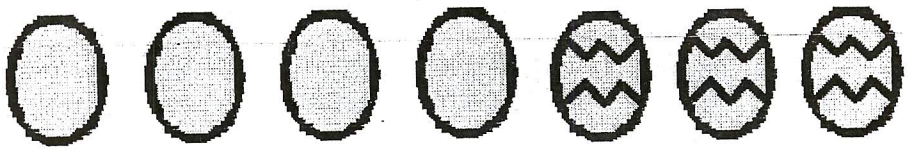
A 9 to 4 **B** 9 to 5

C 4 to 5 **D** 5 to 4

Name _____ Date _____

SOL 6.2 - Ratios

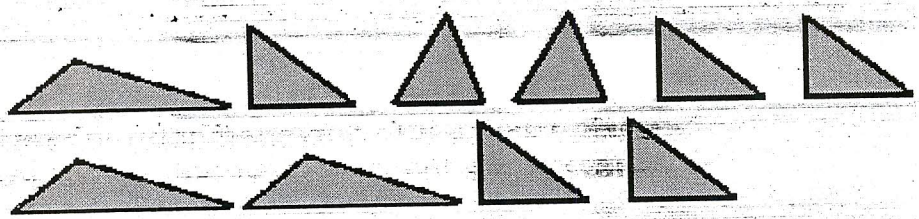
7. **John's little sister decorated Easter eggs. Some of the eggs were solid and some of the eggs were striped.**



Based on the picture above, what is the ratio of striped eggs to solid eggs?

A 4:7 **B** 3:4

C 4:3 **D** 3:7



8. **Based on the picture above, what is the ratio of right triangles to obtuse triangles?**

A $\frac{3}{5}$ **B** $\frac{2}{5}$

C $\frac{5}{2}$ **D** $\frac{5}{3}$

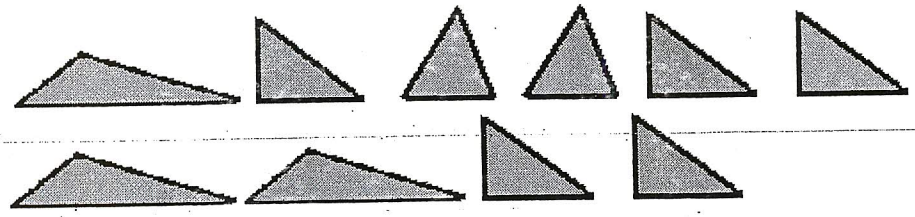
9. **Alicia has written 6 poems and 8 short stories for English class. What is the ratio of short stories to poems?**

A 6 to 14 **B** 6 to 8

C 8 to 14 **D** 8 to 6

Name _____ Date _____

SOL 6.2 - Ratios



10. Based of the picture above, what is the ratio of acute triangles to obtuse triangles?

A $\frac{2}{3}$

B $\frac{3}{2}$

C $\frac{3}{5}$

D $\frac{2}{5}$

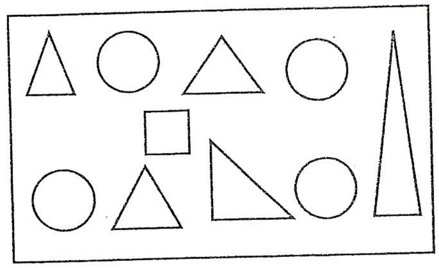
NAME ______________________________ DATE ______________ PERIOD _____

10-1 Study Guide and Intervention

Ratios

A **ratio** is a comparison of two numbers by division. A common way to express a ratio is as a fraction in simplest form. Ratios can also be written in other ways. For example, the ratio $\frac{2}{3}$ can be written as 2 to 3, 2 out of 3, or 2:3.

EXAMPLES **Refer to the diagram at the right.**



1 Write the ratio that compares the number of circles to the number of triangles.

$$\begin{array}{ll} \text{circles} \rightarrow & 4 \\ \text{triangles} \rightarrow & 5 \end{array} \quad \text{The GCF of 4 and 5 is 1.}$$

So, the ratio of circles to triangles is $\frac{4}{5}$, 4 to 5, or 4:5. For every 4 circles, there are 5 triangles.

2 Write the ratio that compares the number of circles to the total number of figures.

$$\begin{array}{l} \text{circles} \rightarrow \\ \text{total figures} \rightarrow \end{array} \frac{4}{10} \overset{\div 2}{\underset{\div 2}{=}} \frac{2}{5} \quad \text{The GCF of 4 and 10 is 2.}$$

The ratio of circles to the total number of figures is $\frac{2}{5}$, 2 to 5, or 2:5. For every two circles, there are five total figures.

A **rate** is a ratio of two measurements having different kinds of units. When a rate is simplified so that it has a denominator of 1, it is called a **unit rate**.

EXAMPLE 3 **Write the ratio *20 students to 5 computers* as a unit rate.**

$$\frac{20 \text{ students}}{5 \text{ computers}} \overset{\div 5}{\underset{\div 5}{=}} \frac{4 \text{ students}}{1 \text{ computer}}$$

Divide the numerator and the denominator by 5 to get a denominator of 1.

The ratio written as a unit rate is *4 students to 1 computer*.

EXERCISES

Write each ratio as a fraction in simplest form.

1. 2 guppies out of 6 fish
2. 12 puppies to 15 kittens
3. 5 boys out of 10 students

Write each ratio as a unit rate.

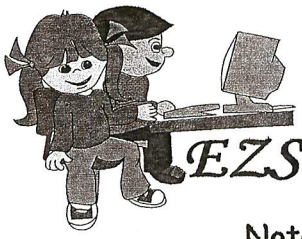
4. 6 eggs for 3 people
5. $12 for 4 pounds
6. 40 pages in 8 days

NAME _____ DATE _____ PERIOD ____

10-1 Practice: Word Problems

Ratios

1. **FOOTBALL** In the NFL 2001–2002 season, the Miami Dolphins won 11 games and the Oakland Raiders won 10 games. What is the ratio of wins for the Dolphins to wins for the Raiders?	2. **GARDENING** Rod has 10 rosebushes, 2 of which produce yellow roses. Write the ratio *2 yellow rosebushes out of 10 rosebushes* in simplest form.
3. **TENNIS** Nancy and Lisa played 20 sets of tennis. Nancy won 12 of them. Write the ratio of Nancy's wins to the total number of sets in simplest form.	4. **AGES** Oscar is 16 years old and his sister Julia is 12 years old. What will be the ratio of Oscar's age to Julia's age in 2 years? Write as a fraction in simplest form.
5. **MOVIES** Four friends paid a total of $32 for movie tickets. What is the ratio *$32 for 4 people* written as a unit rate?	6. **WORKING** At a warehouse, the employees can unload 18 trucks in 6 hours. What is the unit rate for unloading trucks?
7. **ANIMALS** A reindeer can run 96 miles in 3 hours. At this rate, how far can a reindeer run in 1 hour? Explain.	8. **SHOPPING** Jenny wants to buy cereal that comes in large and small boxes. The 32-ounce box costs $4.16, and the 14-ounce box costs $2.38. Which box is less expensive per ounce? Explain.



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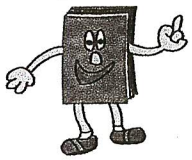


Note: The relation between two quantities expressed as the quotient of one divided by the other: The ratio of 7 to 4 is written 7:4 or 7/4.

Example: What fraction represents the ratio 5:8?

(5/8) 8/5 5/13 8/13

Which fraction represents the given ratio (ratio to fraction):

1) 7:2

2/7 7/7 2/2 7/2

2) 5:3

10/6 3/5 5/5 10/3

3) 3:4

4/3 3/4 4/4 3/3

4) 9:5

9/9 27/15 10/18 5/5

5) 8:3

3/3 8/3 3/8 8/8

6) 4:7

7/7 8/14 4/14 7/4

7) 6:5

5/5 5/6 6/6 6/5

8) 2:7

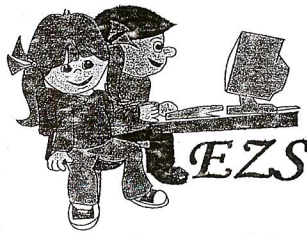
6/21 7/21 6/2 21/6

9) 1:5

5/5 1/1 1/5 5/1

10) 4:5

10/8 4/8 10/5 8/10



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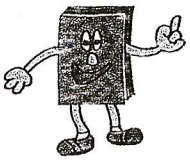

Note: The relation between two quantities expressed as the quotient of one divided by the other: The ratio of 7 to 4 is written 7:4 or 7/4.

Example: 7:4 is equivalent to 14:2

True False Explaination: 14/2 = 7 and not 7/4

Answer the following:

1) 3:4 is equivalent to 3:6

True False Explaination: _____

2) 2:3 is equivalent to 4:6

True False Explaination: _____

3) 5:7 is equivalent to 4:9

True False Explaination: _____

4) 5:2 is equivalent to 2:5

True False Explaination: _____

5) 3:5 is equivalent to 5:10

True False Explaination: _____

6) 4:9 is equivalent to 8:18

True False Explaination: _____

7) 5:5 is equivalent to 9:15

True False Explaination: _____

8) 7:5 is equivalent to 5:7

True False Explaination: _____

9) 6:7 is equivalent to 7:6

True False Explaination: _____

10) 6:7 is equivalent to 18:21

True False Explaination: _____

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Note: The relation between two quantities expressed as the quotient of one divided by the other: The ratio of 7 to 4 is written 7:4 or 7/4.

Example: What is the ratio of blue balls to red balls?

(2:3) 3:2 2:5 3:5

Answer the following:

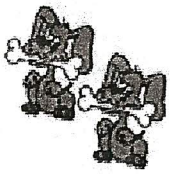
1) What is the ratio of balloons to airplanes?

3:2 2:3 2:5 3:5

2) What is the ratio of leaves to flowers?

2:4 2:6 4:2 4:6

3) What is the ratio of bones to ears?



6:2 2:4 6:4 4:2

4) What is the ratio of house to spiders?

6:1 5:1 5:6 1:5

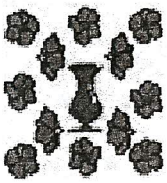
5) What is the ratio of balloons to tricycle?

3:1 1:3 1:4 4:3

6) What is the ratio of hands to balls?

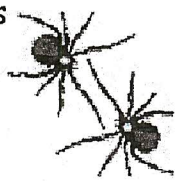
5:2 2:7 7:2 2:5

7) What is the ratio of vase to flowers?



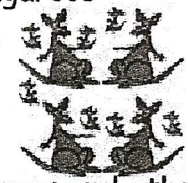
1:10 1:12 12:1 10:1

8) What is the ratio of spiders to its legs?



2:4 2:16 2:8 2:12

9) What is the ratio of kangaroos to its babies kangaroos?



11:4 4:11 7:4 11:7

10) What is the ratio of blue buttons to buttons?

8:9 17:8 9:17 9:8

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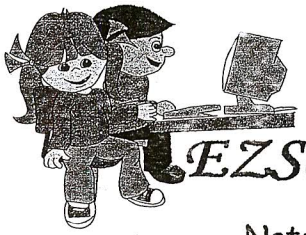

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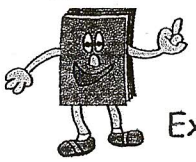

Note: The relation between two quantities expressed as the quotient of one divided by the other: The ratio of 7 to 4 is written 7:4 or 7/4.

Example: There are 4 apples and 3 oranges in a basket.

4:3 --> part to part; 5:4 or 5:3 --> whole to part; 4:5 or 3:5 --> part to whole

Answer the following:

1) 5 out of 10 students know Spanish. What type of a ratio is 5:10?

whole to part part to part part to whole

2) It snowed 3 out of 4 days. What type of a ratio is 3:1?

whole to part part to part part to whole

3) 4 out of 9 baseball players participated in the game. What type of a ratio is 9:4?

whole to part part to part part to whole

4) There were 3 fish for every turtle. What type of ratio is 3:1?

whole to part part to part part to whole

5) Each car has 4 wheels. What type of a ratio is 1:4?

whole to part part to part part to whole

6) There is one leader among every 10 kids. What type of a ratio is 1:10?

whole to part part to part part to whole

7) Jay scored only 2 out of 10 in a test. What type of a ratio is 2:8?

whole to part part to part part to whole

8) She painted 3 cups out of 5. What type of a ratio is 5:3?

whole to part part to part part to whole

9) Stella had 4 chocolate chip cookies, 3 sugar cookies and 5 walnut cookies. What type of a ratio is 3:12?

whole to part part to part part to whole

10) Steven cleaned 3 shirts, 4 pants and 2 pullovers. What type of a ratio is 3:4?

whole to part part to part part to whole