

Name \_\_\_\_\_

Period \_\_\_\_\_

### Unit 4 Dividing Fractions Week of 1/20/20

Learning Targets from 6<sup>th</sup> Grade Common Core State Standards:

Lesson 1 Size of Divisor and Size of Quotient

- When dividing I can explain how the size of the divisor affects the quotient.

Lesson 2 Meanings of Division

- When given a division equation, I can write a multiplication equation that represents the same situation.
- I can explain two ways of interpreting a division expression such as  $27 \div 3$ .
- I can explain how multiplication and division are related.

Lesson 3 Interpreting Division Situations

- I can decide whether a division question is asking "how many groups?" or "how many in each group?"
- I can create a diagram or write an equation that represents division and multiplication questions.

Lesson 4 How many groups?(Part 1)

- I can use diagrams and multiplication and division equations to represent "how many groups?" questions.
- I can find how many groups there are when the amount in each group is not a whole number.

This Week's Vocabulary Words:

multiplication    division    quotient    divisor    group    tape diagram

Homework is due the following day.

Day	Class work—All in Spiral using iPad	Homework	Complete	Correct
Tuesday	Lesson 1 Size of Divisor and Size of Quotient PDF page 1	Pages 1 & 2: Lesson 1 Practice Problems—All	/4	/25
Wednesday	Lesson 2 Meanings of Division PDF page 5	Pages 3 & 4: Lesson 2 Practice Problems—All	/4	/27
Thursday	Lesson 3 Interpreting Division Situations PDF page 8	Pages 5 & 6: Lesson 3 Practice Problems—All	/4	/14
Friday	Lesson 4 How many groups (Part 1) PDF page 12	None		
		Total	/12	
		Quality	/4	
		Total	/16	

Homework Quality—Remember, if you don't know how to complete a problem you should read it again and write down the information you have, draw a picture, or write a question you have, please do not leave blank or write "?" or idk. You can also come in and get help before school☺!

- Work is **thorough** with **detailed** explanations (2 pts)
- Homework is corrected (with additions needed) in a different color pen/pencil (2 pts)



NAME

DATE

PERIOD

## Unit 4, Lesson 1

## Practice Problems

1. Order from smallest to largest:

- Number of pennies in a stack that is 1 ft high
- Number of books in a stack that is 1 ft high
- Number of dollar bills in a stack that is 1 ft high
- Number of slices of bread in a stack that is 1 ft high

2. Use each of the numbers 4, 40, and 4000 once to make true statements.

- The value of \_\_\_\_\_  $\div 40.01$  is close to 1
- The value of \_\_\_\_\_  $\div 40.01$  is much less than 1.
- The value of \_\_\_\_\_  $\div 40.01$  is much greater than 1.

3. Without computing, decide whether the value of each expression is much smaller than 1, close to 1, or much greater than 1.

- $100 \div \frac{1}{1000}$
- $50\frac{1}{3} \div 50\frac{1}{4}$
- $4.7 \div 5.2$
- $2 \div 7335$
- $2,000,001 \div 9$
- $0.002 \div 2,000$

4. A rocking horse has a weight limit of 60 pounds.

- What percentage of the weight limit is 33 pounds?
- What percentage of the weight limit is 114 pounds?
- What weight is 95% of the limit?



NAME \_\_\_\_\_

DATE \_\_\_\_\_

PERIOD \_\_\_\_\_

5. Compare using  $>$ ,  $=$ , or  $<$ .

a.  $0.7$  \_\_\_\_\_  $0.70$

b.  $0.03 + \frac{6}{10}$  \_\_\_\_\_  $0.30 + \frac{6}{100}$

c.  $0.9$  \_\_\_\_\_  $0.12$

6. Diego has 90 songs on his playlist. How many songs are there for each genre?

a. 40% rock

b. 10% country

c. 30% hip-hop

d. The rest is electronica

7. A garden hose emits 9 quarts of water in 6 seconds. At this rate:

a. How long will it take the hose to emit 12 quarts?

b. How much water does the hose emit in 10 seconds?



NAME

DATE

PERIOD

27

## Unit 4, Lesson 2

**Practice Problems**

1. Twenty pounds of strawberries are being shared equally by a group of friends. The equation  $20 \div 5 = 4$  represents the division of strawberries.

2

- a. If the 5 represents the number of people, what does the 4 represent?  
b. If the 5 represents the pounds of strawberries per person, what does the 4 represent?

2. A sixth-grade science club needs \$180 to pay for the tickets to a science museum. All tickets cost the same amount.

4

What could  $180 \div 15$  mean in this context? Describe two interpretations of the expression.<sup>2</sup> Then, find the quotient and explain what it means in each interpretation.<sup>1</sup>

3. Write a multiplication equation that corresponds to each division equation.

3

a.  $10 \div 5 = ?$

b.  $4.5 \div 3 = ?$

c.  $\frac{1}{2} \div 4 = ?$

4. Write a division or multiplication equation that represents each situation. Use a “?” for the unknown quantity.

3

- a. 2.5 gallons of water are poured into 5 equally sized bottles. How much water is in each bottle?  
b. A large bucket of 200 golf balls is divided into 4 smaller buckets. How many golf balls are in each small bucket?  
c. Sixteen socks are put into pairs. How many pairs are there?

5. Find a value for  $a$  that makes each statement true.

4



NAME \_\_\_\_\_

DATE \_\_\_\_\_

PERIOD \_\_\_\_\_

a.  $a \div 6$  is greater than 1c.  $a \div 6$  is less than 1b.  $a \div 6$  is equal to 1d.  $a \div 6$  is equal to a whole number

6. Complete the table. Write each percentage as a percent of 1.

fraction	decimal	percentage
$\frac{1}{4}$	0.25	25% of 1
	0.1	
		75% of 1
$\frac{1}{5}$		
	1.5	
		140% of 1

7. Jada walks at a speed of 3 miles per hour. Elena walks at a speed of 2.8 miles per hour. If they both begin walking along a walking trail at the same time, how much farther will Jada walk after 3 hours? Explain your reasoning.

NAME \_\_\_\_\_

DATE \_\_\_\_\_

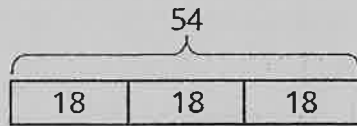
PERIOD \_\_\_\_\_

14

Unit 4, Lesson 3

Practice Problems

1. Write a multiplication equation and a division equation that this diagram could represent.



2

2. Mai has \$36 to spend on movie tickets. Each movie ticket costs \$4.50. How many tickets can she buy?

3

- a. Write a multiplication equation and a division equation to represent this situation.  
 b. Find the answer. Draw a diagram, if needed.  
 c. Use the multiplication equation to check your answer.

3. Kiran said that this diagram can show the solution to  $16 \div 8 = ?$  or  $16 \div 2 = ?$ , depending on how we think about the equations and the “?”.

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Explain or show how Kiran is correct.



4. Write a sentence describing a situation that could be represented by the equation  $4 \div 1\frac{1}{3} = ?$ .

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5. Noah said, “When you divide a number by a second number, the result will always be smaller than the first number.”

T



NAME

DATE

PERIOD

Jada said, "I think the result could be larger or smaller, depending on the numbers."

Do you agree with Noah or Jada? Show or explain your reasoning.

6. Mini muffins cost \$3.00 per dozen.

- Andre says, "I have \$2.00, so I can afford 8 muffins."
- Elena says, "I want to get 16 muffins, so I'll need to pay \$4.00."

Do you agree with either, both, or neither of them? Explain your reasoning.

7. A family has a monthly budget of \$2,400. How much money is spent on each category?

- a. 44% is spent on housing.
- b. 23% is spent on food.
- c. 6% is spent on clothing.
- d. 17% is spent on transportation.
- e. The rest is put into savings.

