

PACKETS

Name _____ Class _____ Date _____



Weekly Practice Packet #5:

Fraction Multiplication and Division

The weekly practice packet is due on _____.

Complete the problems in the packet throughout the week as you learn more about each skill or concept. It is important that you try your best and persevere when solving each problem or answering each question.

The weekly practice packet counts as a 10-point nightly practice grade.

If you get stuck do the following:

1. Refer to your class notes, practice sheets, and warm-ups.
2. Refer to your textbook. The corresponding textbook pages are noted at the beginning of each section.
3. Take a break and try the problem or question again.
4. Attend Mrs. Brightman's extra help sessions.
5. Still having trouble? Write a statement stating why you are having difficulty on the problem or question.

PART I: VOCABULARY

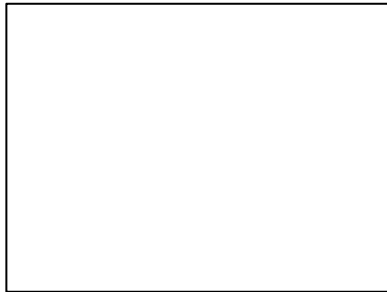
Complete the foldable for the vocabulary words listed below. The definitions for these words can be found in class notes. These words appear throughout the packet and the foldable will be most useful in becoming more familiar with their definitions.

Product**Quotient****Equivalent****Reciprocal**

PART II: FRACTION MULTIPLICATION (notes pages 7, 8)

1. Model the following multiplication problems using the rectangle provided. Write your final product in simplest form on the line provided.

a. $\frac{1}{6}$ of $\frac{2}{3}$



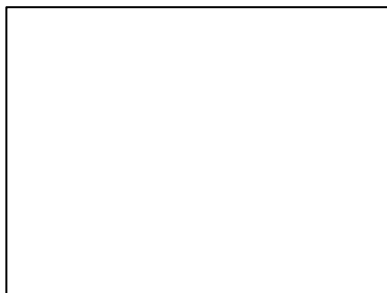
Product: _____

b. $\frac{2}{3}$ of $\frac{1}{4}$



Product: _____

c. $\frac{2}{5} \times \frac{5}{6}$



Product: _____

d. $\frac{4}{5} \times \frac{1}{2}$



Product: _____

2. Fill in the blank with **more than, less than, or equal to**, in order to complete the following statement.

If $\frac{2}{3}$ of $\frac{4}{5} = \frac{8}{15}$, then $\frac{1}{3}$ of $\frac{4}{5}$ will be _____ $\frac{8}{15}$.

I know this because....

3. **Explain** the error in the student's work below. **Show** the correct work.

$$3\frac{1}{3} \times 3\frac{1}{4} = 9\frac{1}{12}$$

Explanation:

Corrected Work:

-
4. When using the simplifying factors strategy, can you simplify a pair of factors if they are both on the numerator? For example, can you simplify factors in $\frac{2}{7} \times \frac{4}{11}$?

Circle One: Yes NO

Explain where the factors must be located when simplifying factors.

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5. When multiplying mixed numbers, what first must be done in order to multiply with ease? Give an example below showing this important step.

You first must _____.

For example:

6. Complete the table below by (1) identifying the number of pairs of factors that can be simplified in each multiplication problem and (2) which pairs can be simplified.

<i>Problem</i>	<i>How many pairs of factors can be simplified?</i>	<i>What are the pairs that can be simplified?</i>
$\frac{7}{8} \times \frac{12}{7}$		
$3\frac{3}{5} \times 1\frac{2}{9}$		
$21 \times 3\frac{5}{12}$		
$1\frac{1}{4} \times \frac{8}{15}$		

7. Determine the following products using the **simplifying factors strategy**.

a.) $\frac{7}{8} \times \frac{12}{7}$

b.) $3\frac{3}{5} \times 1\frac{2}{9}$

c.) $21 \times 3\frac{5}{12}$

d.) $1\frac{1}{4} \times \frac{8}{15}$

PART III: FRACTION DIVISION (notes pages 9, 10)

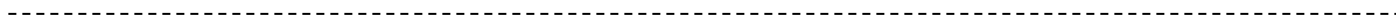
8. Answer the following questions using the rectangle provided. Write the division problem and quotient that represents each question.

a. How many halves are in 3?



Division Problem:

Quotient:



b. How many quarters are in 4?



Division Problem:

Quotient:



c. How many two-thirds are in 6?



Division Problem:

Quotient:

9. Model the following division problems using the rectangle provided. Determine what the division problem means and then write the quotient.

a. $4 \div \frac{2}{3}$

What does it mean?

Quotient:

b. $5 \div \frac{3}{4}$

What does it mean?

Quotient:

10. Fill in the blank with **more than**, **less than**, or **equal to**, in order to complete the following statement.

If $3 \div \frac{1}{3} = 9$, then $3 \div \frac{2}{3}$ will be _____ 9.

I know this because....

11. A student made the statement below. Explain why the student's thinking is incorrect.

The reciprocal of $2\frac{5}{6}$ is $2\frac{6}{5}$.

12. Your friend finds the quotient. **Explain** why your friend's work is incorrect.

Show the correct work.

Explanation:

$$\begin{aligned} \frac{2}{5} \div \frac{8}{9} &= \frac{5}{2} \times \frac{8}{9} \\ &= \frac{5 \times 8}{2 \times 9} \\ &= \frac{40}{18}, \text{ or } 2\frac{2}{9} \end{aligned}$$

Corrected Work:

13. Find the following quotients. **Simplify factors** when necessary.

a.) $\frac{2}{5} \div \frac{8}{25}$

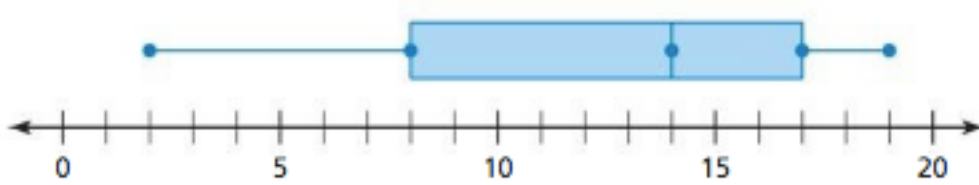
b.) $6\frac{3}{4} \div 4\frac{1}{2}$

c.) $\frac{3}{4} \div 12$

d.) $2\frac{4}{5} \div \frac{8}{15}$

PART IV: REVIEW – BOX PLOTS (Statistics Notes pages 16, 17, 18)

14. In the box plot below, identify the five-number summary.



Minimum: _____ Q1: _____ Q2: _____ Q3: _____ Maximum: _____

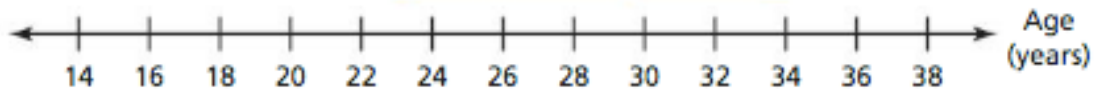
15. The data below represents the ages (in years) of the spider monkeys at a zoo.

15	20	14	38	30	36	30	30	27	26	33	35
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a. Determine the five-number summary for this data.

Minimum: _____ Q1: _____ Q2: _____ Q3: _____ Maximum: _____

b. Create a box plot for this data.



c. Write a statement interpreting what the third quartile value represents.