Warm-Up

Name

Do This Now

MULTIPLYING FRACTIONS

PRACTICE PROBLEMS

#1 Find the product.

$$\frac{2}{7} \times \frac{3}{5} = \frac{3}{3}$$

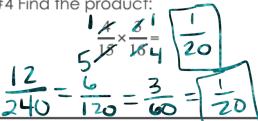
#2 Find the product:

$$\frac{1}{14} \times \frac{2}{6} = \frac{2}{84} = \frac{1}{42}$$

#3 Find the product:

$$\frac{6}{8} \times \frac{2}{6} = \frac{12}{48} = \frac{3}{12} = \boxed{\frac{1}{4}}$$

#4 Find the product:



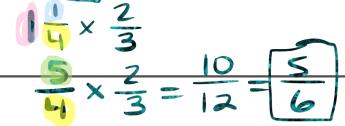
#5 Find the product:

$$(\frac{12}{3} \times 2\frac{1}{4} = \frac{3}{3} \times \frac{1}{4} = \frac$$

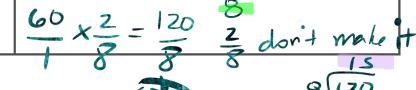
#6 Find the product:

$$\frac{8 \times \frac{5}{14}}{14} = \frac{40}{14} = 2\frac{12}{14}$$
$$= 2\frac{6}{14}$$

#7 The length of park is $\frac{2}{3}$ miles. The width is $1\frac{1}{4}$ miles. What is the area, in square miles, of the park?



#8 There are 60 girls who try out for the track team. Only of the girls will make the team. How many girls do not make the team?



$$\frac{60}{1} \times \frac{6}{8} = \frac{360}{8} = \frac{45}{800} = \frac{45}{800} = \frac{326}{40}$$

Name: Date:

> VIVIVING FRACTIONS

Last page is HW.

GUIDED NOTES

IMPORTANT VOCABULARY: Due next class.

- (FLIP) Reciprocal: The multiplicative <u>Inverse</u>. (Figure 1) Quotient: The answer to a <u>division</u> problem.

DIVIDING FRACTIONS

1. To find the reciprocal of a number, write the number as a

Fraction If it's a whole number, put a '1" underneath it. If it's a mixed number, convert it to an improper fraction.

- 2. Then, __invert _____ the numerator and denominator. (FL)
- 3. Any number times its reciprocal is ______.
- 4. Find the reciprocal of each number below.

$$\frac{1}{4} \times \frac{1}{4} = 1$$

$$\frac{2}{5} \times \frac{5}{2} = 1$$

$$\frac{1}{4} \times \frac{4}{1} = 1$$
 $\frac{2}{5} \times \frac{5}{2} = 1$ $\frac{8}{9} \times \frac{9}{8} = 1$

$$7 \times \frac{1}{2} = 1$$

- 5. To divide fractions, change the operation to __multiplication.
 6. Then, multiply the dividend by the __reciprocal____ of the divisor.
- 7. An easy way to remember it is:

KEEP the dividend the same (1 fraction)

CHANGE division to multiplication

FUIP the divisor to its reciprocal

DED PRACTICE

$$\frac{\frac{1}{2} \div \frac{2}{3}}{2} = \frac{3}{4}$$

$$\frac{7^{\frac{1}{8}}}{7} \times \frac{8}{3} = \frac{24}{21} = 13$$



Name:	Date:



DIVIDING FRACTIONS

PRACTICE PROBLEMS

Find each quotient. Simplify your answers.

#4

$$\frac{2}{9} \div \frac{10}{14} = \frac{2}{9} \times \frac{14}{10} = \frac{28}{90} = \boxed{14}$$

$$\frac{6}{10} \div \frac{2}{7} = \frac{6}{10} \times \frac{7}{2} = \frac{42}{20} = \frac{22}{20} = \frac{21}{20}$$

$$\frac{4}{9} \div \frac{8}{12} = \frac{4}{9} \times \frac{12}{8} = \frac{48}{72} = \frac{24}{31} = \frac{12}{18} = \frac{24}{18} = \frac{12}{18}$$

$$\frac{\overline{14} + 8}{14} = \frac{6}{14} \times \frac{8}{1} = \frac{48}{14} = \frac{36}{14} = \frac{33}{14} =$$

#5
$$\frac{1}{3} \div \frac{15}{21} =$$
 #6 $\frac{3}{24} \div \frac{2}{6} =$ $\frac{3}{24} \times \frac{21}{3} = \frac{21}{45} = \frac{3}{15} \times \frac{3}{24} \times \frac{6}{3} = \frac{3}{24} \times \frac{6}{3} = \frac{3}{24} \times \frac{3}{2} = \frac{3}{48} = \frac{3}{8} = \frac{$

#7 Shea is making costumes for the school play. She has 14 feet of ribbon. She needs to cut pieces that are $^3/_5$ feet long. How many full pieces can Shea cut? How much will she have leftover.

Homework- due next class (front and back)

- How many thirds are there in
 Evaluate the expression: 123
 - a) 3
 - b) 6
 - c) 30
 - d) 36

$$\frac{1}{4} \div \frac{1}{3}$$

- a) $\frac{1}{12}$
- b) $\frac{1}{7}$
- C) $\frac{3}{4}$
- 3. What is the reciprocal of $\frac{5}{6}$?
 - a) $\frac{1}{5}$
 - b) $\frac{1}{6}$
 - C) $\frac{5}{6}$
 - d) $\frac{6}{5}$

- 4. Jenna has $\frac{7}{8}$ lb. of candy. She splits it equally between 3 friends. How much does each friend get?
 - a) $\frac{7}{24}$ lb.
 - b) $2\frac{5}{8}$ lb.
 - c) $3\frac{3}{7}$ lb.
 - d) $3\frac{7}{8}$ lb.

Answer the question below. Be sure to show all of your work.

5. A rectangular mat has an area of $\frac{7}{12}$ in². The length of the mat is $\frac{5}{6}$ in. What is the width of the mat?

- 1) Show work
- 2) Reduce to lowest terms if needed.

Multiplying and Dividing Fractions (A)

Find the value of each expression in lowest terms.

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

6.
$$\frac{1}{4} \times \frac{5}{3}$$

11.
$$\frac{10}{3} \times \frac{11}{6}$$

2.
$$\frac{1}{6} \div \frac{8}{11}$$

7.
$$\frac{11}{2} \div \frac{1}{2}$$

12.
$$\frac{1}{2} \div \frac{1}{2}$$

3.
$$\frac{1}{3} \div \frac{13}{9}$$

8.
$$\frac{4}{3} \div \frac{11}{12}$$

13.
$$\frac{14}{9} \times \frac{7}{10}$$

4.
$$\frac{13}{4} \div \frac{1}{2}$$

9.
$$\frac{1}{3} \times \frac{20}{9}$$

14.
$$\frac{15}{8} \times \frac{7}{6}$$

5.
$$\frac{17}{6} \div \frac{3}{5}$$

10.
$$\frac{13}{7} \times \frac{14}{11}$$

15.
$$\frac{3}{2} \div \frac{4}{9}$$