Name _____

Dividing Fractions

R 5-6

Dividing by a fraction is the same as multiplying by its reciprocal.
The product of a number and its reciprocal is 1. For example:

Number	×	Reciprocal	=	Product
3	×	$\frac{1}{3}$	=	1
$\frac{1}{8}$	×	$\frac{8}{1}$	=	1
$\frac{2}{3}$	×	$\frac{3}{2}$	=	1

Find $\frac{4}{5} \div \frac{3}{10}$.

Step 1	**Step 2**
Rewrite the problem as a multiplication problem. Rewrite the divisor as its reciprocal.	Simplify if possible. Multiply. If your answer is an improper fraction, change it to a mixed number.
The reciprocal of $\frac{3}{10}$ is $\frac{10}{3}$. $\frac{4}{5} \times \frac{10}{3}$	$\frac{4}{\overset{}{\underset{1}{5}}} \times \frac{\overset{2}{10}}{3} = \frac{8}{3}$ $\frac{8}{3} = 2\frac{2}{3}$

Write the reciprocal of each fraction or number.

1. $\frac{2}{5}$ _____

2. $\frac{1}{7}$ _____

3. 9 _____

4. 15 _____

Find each quotient. Simplify if possible.

5. $6 \div \frac{1}{4} =$ _____

6. $\frac{2}{3} \div \frac{1}{2} =$ _____

7. $\frac{4}{5} \div 10 =$ _____

8. $\frac{1}{3} \div \frac{8}{9} =$ _____

9. $12 \div \frac{3}{8} =$ _____

10. $\frac{7}{10} \div \frac{3}{4} =$ _____

11. $\frac{11}{12} \div \frac{1}{3} =$ _____

12. $\frac{5}{8} \div 6 =$ _____

13. Marcus is making tea for his friends. He has 6 tbsp of honey. If he puts $\frac{1}{2}$ tbsp of honey in each cup of tea, how many cups can he make?

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Use with Lesson 5-6.   **59**

Name _____

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Write the reciprocal for each fraction or number.

1. 5 _____

2. $\frac{7}{12}$ _____

3. $\frac{16}{20}$ _____

Find each quotient. Simplify if possible.

4. $8 \div \frac{1}{5} =$ _____

5. $\frac{1}{2} \div \frac{1}{3} =$ _____

6. $\frac{3}{4} \div 12 =$ _____

7. $\frac{3}{5} \div \frac{7}{8} =$ _____

8. $20 \div \frac{4}{9} =$ _____

9. $\frac{9}{10} \div \frac{5}{6} =$ _____

10. $\frac{13}{16} \div \frac{1}{4} =$ _____

11. $\frac{4}{7} \div 8 =$ _____

12. $3 \div \frac{1}{5} =$ _____

13. Reasoning Will the quotient of $5 \div \frac{7}{8}$ be greater than 5?
Explain.

_____

_____

_____

14. Louis has $7\frac{1}{2}$ ft of red ribbon. How many red bows
can he make using $\frac{3}{4}$ ft pieces of ribbon for each bow? _____

15. Debra has 14 ft of silver ribbon. How many silver bows
can she make using $\frac{2}{3}$ ft pieces of ribbon for each bow? _____

Test Prep

16. Find $\frac{1}{2} \div \frac{7}{8}$.

   A. $\frac{3}{5}$ **B.** $\frac{3}{7}$ **C.** $\frac{4}{5}$ **D.** $\frac{4}{7}$

17. Writing in Math Explain how you would find the quotient
of $\frac{2}{3}$ and $\frac{3}{4}$.

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