Name _____ Date _____ Class _____

SKILL 16: Dividing Fractions

To divide by a fraction, write the reciprocal of the divisor and change the division to multiplication.

Example

Find $\frac{5}{6} \div \frac{7}{8}$ in simplest form.

$\frac{5}{6} \div \frac{7}{8} = \frac{5}{6} \times \frac{8}{7}$ Write the reciprocal of the divisor and change the division to multiplication.

$= \frac{5 \times 8}{6 \times 7}$ Multiply.

$= \frac{40}{42}$ Check that your answer is in simplest form.

$= \frac{20}{21}$

So, $\frac{5}{6} \div \frac{7}{8} = \frac{20}{21}$.

Guided Practice

Divide. Write each quotient in simplest form.

1. Divide: $\frac{1}{2} \div \frac{4}{5}$.

a. The reciprocal of $\frac{4}{5}$ is _____.

b. Multiply by the reciprocal. $\frac{\square}{\square} \times \frac{\square}{\square} =$ _____

2. Divide: $\frac{3}{4} \div \frac{5}{12}$.

a. The reciprocal of $\frac{5}{12}$ is _____.

b. Multiply by the reciprocal. $\frac{\square}{\square} \times \frac{\square}{\square} =$ _____

c. Simplify. _____

3. $\frac{5}{8} \div \frac{15}{16} = \frac{\square}{\square} \times \frac{\square}{\square} =$ _____

4. $\frac{3}{8} \div \frac{1}{2} = \frac{\square}{\square} \times \frac{\square}{\square} =$ _____

5. $\frac{7}{10} \div \frac{1}{6} = \frac{\square}{\square} \times \frac{\square}{\square} =$ _____

6. $\frac{8}{15} \div \frac{8}{9} = \frac{\square}{\square} \times \frac{\square}{\square} =$ _____

7. $\frac{4}{5} \div \frac{2}{3} =$ _____

8. $\frac{3}{8} \div \frac{3}{4} =$ _____

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SKILL 16: Practice

Divide. Write each quotient in simplest form.

1. $\frac{1}{2} \div \frac{7}{10} =$ _____
2. $\frac{5}{12} \div \frac{1}{6} =$ _____
3. $\frac{4}{7} \div \frac{2}{3} =$ _____
4. $\frac{5}{6} \div \frac{1}{4} =$ _____
5. $\frac{9}{11} \div \frac{3}{7} =$ _____
6. $\frac{3}{4} \div \frac{5}{8} =$ _____
7. $\frac{1}{6} \div \frac{5}{8} =$ _____
8. $\frac{3}{4} \div \frac{1}{6} =$ _____
9. $\frac{11}{12} \div \frac{1}{4} =$ _____
10. $\frac{3}{4} \div \frac{5}{12} =$ _____
11. $\frac{7}{12} \div \frac{2}{3} =$ _____
12. $\frac{5}{8} \div \frac{1}{6} =$ _____
13. $\frac{5}{6} \div \frac{3}{10} =$ _____
14. $\frac{2}{5} \div \frac{3}{10} =$ _____
15. $\frac{4}{5} \div \frac{2}{7} =$ _____
16. $\frac{2}{3} \div \frac{4}{9} =$ _____
17. $\frac{5}{9} \div \frac{1}{3} =$ _____
18. $\frac{1}{4} \div \frac{7}{8} =$ _____

Solve.

19. A soup recipe calls for $\frac{3}{8}$ of a cup of olive oil. One tablespoon is equal to $\frac{1}{16}$ of a cup. How many tablespoons of olive oil are needed to make the soup? _____

20. A sheet of posterboard is $\frac{1}{24}$ in. thick. How many sheets of this posterboard are needed to make a stack $\frac{3}{4}$ in. high? _____

TEST PREP

21. Divide: $\frac{5}{9} \div \frac{2}{3}$. *Skill 16*

A $\frac{3}{5}$ C $\frac{10}{27}$

B $\frac{5}{6}$ D $1\frac{1}{5}$

22. Which is the best estimate of $5\frac{6}{7} + 3\frac{7}{12}$? *Skill 1*

F 8 H 10

G 9 J 11