

## Finding the Reciprocal

F-DIV 1

**Instructions:** Write the reciprocal of each fraction by switching the top and bottom numbers.

1  $\frac{3}{8}$  reciprocal:  $\frac{8}{3}$

2  $\frac{8}{12}$  reciprocal: —

3  $\frac{1}{5}$  reciprocal: —

4  $\frac{6}{15}$  reciprocal: —

5  $\frac{3}{4}$  reciprocal: —

6  $\frac{20}{35}$  reciprocal: —

7  $\frac{2}{7}$  reciprocal: —

8  $\frac{7}{11}$  reciprocal: —

9  $\frac{8}{19}$  reciprocal: —

10  $\frac{12}{32}$  reciprocal: —

**Instructions:** Multiply each fraction by its reciprocal to get a 'whole fraction' which is just 1.

1  $\frac{2}{5} \times \frac{5}{2} = \frac{10}{10} = 1$

2  $\frac{4}{5} \times \text{---} = \text{---} = 1$

3  $\frac{4}{7} \times \text{---} = \text{---} = 1$

4  $\frac{5}{3} \times \text{---} = \text{---} = 1$

5  $\frac{3}{7} \times \text{---} = \text{---} = 1$

6  $\frac{1}{11} \times \text{---} = \text{---} = 1$

7  $\frac{6}{8} \times \text{---} = \text{---} = 1$

8  $\frac{7}{9} \times \text{---} = \text{---} = 1$

9  $\frac{2}{9} \times \text{---} = \text{---} = 1$

10  $\frac{3}{12} \times \text{---} = \text{---} = 1$

## Dividing Fractions (Guided Practice)

F-DIV 2

**Instructions:** Solve these division problems by multiplying by the reciprocal. Use the guides to help you. You do **not** need to simplify your answers.

$$\begin{aligned} \text{1} \quad & \frac{3}{4} \div \frac{2}{5} \\ & \frac{3}{4} \times \frac{5}{2} = \frac{15}{8} \end{aligned}$$

$$\begin{aligned} \text{2} \quad & \frac{5}{4} \div \frac{2}{3} \\ & \frac{5}{4} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{3} \quad & \frac{1}{7} \div \frac{1}{4} \\ & \frac{1}{7} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{4} \quad & \frac{8}{13} \div \frac{1}{2} \\ & \frac{8}{13} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{5} \quad & \frac{3}{5} \div \frac{1}{6} \\ & \frac{3}{5} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{6} \quad & \frac{4}{8} \div \frac{5}{1} \\ & \frac{4}{8} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{7} \quad & \frac{5}{8} \div \frac{3}{4} \\ & \frac{5}{8} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{8} \quad & \frac{1}{12} \div \frac{1}{12} \\ & \frac{1}{12} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{9} \quad & \frac{7}{9} \div \frac{2}{3} \\ & \frac{7}{9} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{10} \quad & \frac{1}{8} \div \frac{3}{16} \\ & \frac{1}{8} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{11} \quad & \frac{5}{11} \div \frac{4}{7} \\ & \frac{5}{11} \times \text{---} = \end{aligned}$$

$$\begin{aligned} \text{12} \quad & \frac{9}{10} \div \frac{5}{6} \\ & \frac{9}{10} \times \text{---} = \end{aligned}$$

## Dividing Fractions (More Practice)

F-DIV 3

**Instructions:** Solve these division problems by multiplying by the reciprocal. You do **not** need to simplify your answers.

1  $\frac{1}{6} \div \frac{3}{7}$   
 $\frac{1}{6} \times \frac{7}{3} = \frac{7}{18}$

2  $\frac{5}{6} \div \frac{3}{4}$

3  $\frac{5}{12} \div \frac{1}{4}$

4  $\frac{4}{11} \div \frac{5}{7}$

5  $\frac{4}{7} \div \frac{2}{3}$

6  $\frac{9}{2} \div \frac{5}{1}$

7  $\frac{6}{5} \div \frac{5}{3}$

8  $\frac{2}{7} \div \frac{7}{9}$

9  $\frac{1}{16} \div \frac{1}{6}$

10  $\frac{11}{12} \div \frac{2}{3}$

11  $\frac{3}{10} \div \frac{7}{8}$

12  $\frac{10}{8} \div \frac{8}{9}$

## Dividing a Fraction by a Whole Number (and Vice-Versa)

F-DIV 4

**Instructions:** Solve these division problems. You do **not** need to simplify your answers in this exercise set.

$$\begin{aligned} \text{1 } \frac{3}{5} \div 2 &= \frac{3}{5} \div \frac{2}{1} \\ &= \frac{3}{5} \times \frac{1}{2} = \frac{3}{10} \end{aligned}$$

$$\text{2 } 5 \div \frac{3}{8} =$$

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

$$\text{4 } 10 \div \frac{9}{2} =$$

$$\text{5 } \frac{6}{7} \div 5 =$$

$$\text{6 } \frac{1}{4} \div 4 =$$

$$\text{7 } 9 \div \frac{4}{7} =$$

$$\text{8 } 8 \div \frac{3}{4} =$$

$$\text{9 } \frac{5}{12} \div 2 =$$

$$\text{10 } 4 \div \frac{1}{10} =$$

## Fractions Made From Fractions

F-DIV 5

**Instructions:** Solve these fraction division problems. Some have guides to help you. You do **not** need to simplify your answers.

1  $\frac{\frac{1}{2}}{\frac{5}{7}} = \frac{1}{2} \times \frac{7}{5} = \frac{7}{10}$

*reciprocal*

2  $\frac{\frac{2}{5}}{\frac{6}{7}} =$

3  $\frac{\frac{4}{7}}{\frac{1}{3}} = \frac{4}{7} \times \text{---} =$

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

5  $\frac{\frac{3}{8}}{\frac{5}{2}} = \frac{3}{8} \times \text{---} =$

6  $\frac{\frac{4}{10}}{\frac{3}{7}} =$

7  $\frac{\frac{5}{9}}{\frac{6}{9}} = \frac{5}{9} \times \text{---} =$

8  $\frac{\frac{2}{9}}{\frac{4}{6}} =$

9  $\frac{\frac{1}{5}}{\frac{2}{11}} = \frac{1}{5} \times \text{---} =$

10  $\frac{\frac{9}{12}}{\frac{2}{3}} =$

11  $\frac{\frac{7}{12}}{\frac{4}{5}} = \frac{7}{12} \times \text{---} =$

12  $\frac{\frac{6}{7}}{\frac{8}{9}} =$