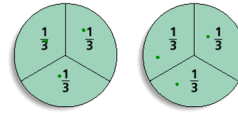


### 3.11 Dividing Fractions & Mixed Numbers

p. 200      12-13-17

Dec 9-9:20 AM

When you divide 8 by 4 you find how many 4's there are in 8. Similarly, when you divide 2 by  $\frac{1}{3}$ , you find how many  $\frac{1}{3}$ 's there are in 2.



There are six  $\frac{1}{3}$ 's in 2.

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

$$\frac{2}{1} \cdot \frac{3}{1} = 6$$

Dec 9-9:07 AM

*Reciprocals* can help you divide by fractions. Two numbers are **reciprocals** if their product is 1. The reciprocal of  $\frac{1}{3}$  is 3 because

$$\frac{1}{3} \cdot 3 = \frac{1}{3} \cdot \frac{3}{1} = \frac{3}{3} = 1.$$

To divide by a fraction, find its reciprocal and then multiply.

$$2 \div \frac{1}{3} = 2 \cdot 3 = 6$$

Dec 9-9:09 AM

### How to divide fractions:

KFC

1. **K** Keep the first fraction.
2. **C** Change the second fraction to its reciprocal. (**FLIP**)
3. **F** Change  $\div$  to  $\times$ .

Feb 24-11:43 AM

Divide. Write each answer in simplest form.

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

↓

$$\frac{3}{7} \cdot \frac{5}{2} = \frac{15}{14} = 1\frac{1}{14}$$

KFC  
Keep  
Flip  
Cancel

$$\frac{3}{8} \div \frac{12}{1}$$

$$\frac{3}{8} \cdot \frac{1}{12} = \frac{1}{32}$$

Jan 21-8:39 AM

Divide. Write each answer in simplest form.

$$\frac{3}{5} \div \frac{1}{2}$$

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

Jan 21-8:39 AM

Divide. Write each answer in simplest form.

$$5\frac{2}{3} \div 1\frac{1}{4}$$

$$\frac{17}{3} \div \frac{5}{4}$$

$$\frac{17}{3} \cdot \frac{4}{5} = \frac{68}{15} = 4\frac{8}{15}$$

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

Jan 21-8:39 AM

$$8\frac{2}{3} \div \frac{13}{27}$$

$$\frac{26}{3} \cdot \frac{27}{13} = 18$$

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

Jan 21-8:40 AM

$$\frac{3}{5} \div 1\frac{2}{5}$$

$$7\frac{1}{5} \div \frac{18}{5}$$

**Divide. Write each answer in simplest form.**

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

2.  $\frac{5}{9} \div \frac{1}{8}$

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

4.  $2\frac{1}{2} \div 3\frac{1}{7}$

5. There are  $5\frac{1}{4}$  yards of silk in a roll. If it takes  $\frac{3}{4}$  of a yard to make one designer scarf, how many scarves can be made from the roll?

Jan 21-8:40 AM

Jan 21-8:41 AM