

Name \_\_\_\_\_

# Multiplying Mixed Numbers

R 5-4

How to find the product of two mixed numbers:

Find  $3\frac{2}{3} \times 4\frac{1}{2}$ .

### Step 1

Estimate by rounding.

$$\begin{array}{r} 3\frac{2}{3} \times 4\frac{1}{2} \\ \downarrow \quad \downarrow \\ 4 \times 5 = 20 \end{array}$$

Then write each mixed number as an improper fraction.

$$\begin{array}{r} 3\frac{2}{3} \times 4\frac{1}{2} \\ \downarrow \quad \downarrow \\ \frac{11}{3} \times \frac{9}{2} \end{array}$$

### Step 2

Look for common factors and simplify.

$$\frac{11}{\cancel{3}_1} \times \frac{\cancel{9}^3}{2} = \frac{11}{1} \times \frac{3}{2}$$

### Step 3

Multiply. Write the product as a mixed number.

$$\frac{11}{1} \times \frac{3}{2} = \frac{33}{2} = 16\frac{1}{2}$$

$16\frac{1}{2}$  is close to 20, so the answer is reasonable.

Find each product. Simplify if possible.

1.  $2\frac{3}{4} \times 3\frac{1}{2} =$  \_\_\_\_\_

2.  $2\frac{1}{5} \times 2\frac{2}{3} =$  \_\_\_\_\_

3.  $6 \times 3\frac{1}{4} =$  \_\_\_\_\_

4.  $1\frac{2}{5} \times 3\frac{1}{4} =$  \_\_\_\_\_

5.  $4\frac{1}{2} \times 16 =$  \_\_\_\_\_

6.  $1\frac{3}{8} \times 2\frac{1}{2} =$  \_\_\_\_\_

7. **Number Sense** Is  $2 \times 17\frac{5}{6}$  greater than or less than 36? Explain.

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