

5-1 Study Guide and Intervention**Estimating with Fractions**

Use rounding to estimate with fractions.

Estimating: For mixed numbers, round to the nearest whole number.

$$4\frac{1}{6} + 3\frac{7}{8} \rightarrow 4 + 4 = 8$$

 $4\frac{1}{6} + 3\frac{7}{8}$ is about 8.For fractions, round to 0, $\frac{1}{2}$, or 1.

$$\frac{11}{12} - \frac{4}{9} \rightarrow 1 - \frac{1}{2} = \frac{1}{2}$$

 $\frac{11}{12} - \frac{4}{9}$ is about $\frac{1}{2}$.**Example 1** Estimate $2\frac{2}{3} \times 4\frac{1}{4}$.

$$2\frac{2}{3} \times 4\frac{1}{4} \rightarrow 3 \times 4 = 12$$

The product is about 12.

Example 2 Estimate $\frac{6}{7} - \frac{3}{5}$. $\frac{6}{7}$ is about 1. $\frac{3}{5}$ is about $\frac{1}{2}$.

$$\frac{6}{7} - \frac{3}{5} \rightarrow 1 - \frac{1}{2} = \frac{1}{2}$$

The difference is about $\frac{1}{2}$.**Exercises**

Estimate.

1. $4\frac{1}{3} + 3\frac{4}{5}$ $4 + 4 = 8$

2. $2\frac{1}{6} \times 3\frac{2}{3}$ $2 \times 4 = 8$

3. $\frac{7}{12} - \frac{1}{10}$ $\frac{1}{2} - 0 = \frac{1}{2}$

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

5. $4\frac{3}{4} + 1\frac{1}{5}$ $5 + 1 = 6$

6. $\frac{5}{9} \times \frac{13}{14}$ $\frac{1}{2} \times 1 = \frac{1}{2}$

7. $\frac{1}{6} \div \frac{8}{9}$ $0 \div 1 = 0$

8. $\frac{6}{7} \div \frac{9}{10}$ $1 \div 1 = 1$

9. $13\frac{4}{5} \div 1\frac{7}{8}$ $14 \div 2 = 7$

10. $12\frac{1}{4} \div 5\frac{7}{8}$ $12 \div 6 = 2$