



Name _____ Date _____

Multiplying Mixed Numbers

(pages 277–279)

Use the following rules to multiply mixed numbers.

Multiplying Mixed Numbers	<ul style="list-style-type: none"> Express mixed numbers as improper fractions. Multiply the numerators and multiply the denominators.
Simplify Before You Multiply	After you express mixed numbers as improper fractions, check to see if the numerator of one fraction and the denominator of another fraction have a common factor. If they do, simplify before you multiply.

EXAMPLES

Find each product.

A $1\frac{1}{4} \times \frac{3}{4}$

Estimate: $1 \times 1 = 1$

$$1\frac{1}{4} \times \frac{3}{4} = \frac{5}{4} \times \frac{3}{4} \quad \text{Express } 1\frac{1}{4} \text{ as an improper fraction.}$$

$$= \frac{15}{16} \quad \text{Multiply and then compare with your estimate.}$$

B $2\frac{2}{3} \times 5\frac{1}{2}$

$$\frac{8}{3} \times \frac{11}{2}$$

$$= \frac{4\cancel{8} \cdot 11}{3 \cdot \cancel{2}}$$

$$= \frac{44}{3} \text{ or } 14\frac{2}{3}$$

Estimate $3 \times 5 = 15$ and then rewrite the mixed numbers as improper fractions.

The GCF of 8 and 2 is 2. Divide both the numerator and denominator by 2 and then multiply.

Rewrite as a mixed number and compare with your estimate.

Try These Together

Find each product. Write in simplest form.

1. $\frac{4}{5} \times 3\frac{1}{5}$

HINT: Rewrite the mixed number as an improper fraction and multiply.

2. $1\frac{1}{3} \times 2\frac{3}{8}$

HINT: Simplify before you multiply.

PRACTICE

Find each product. Write in simplest form.

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

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

5. $1\frac{7}{9} \times 2\frac{1}{7}$

6. $4\frac{2}{5} \times 1\frac{4}{11}$

7. $2\frac{4}{9} \times 2\frac{7}{10}$

8. $2\frac{4}{5} \times 9\frac{1}{6}$



9. Standardized Test Practice It takes Julie $2\frac{1}{4}$ minutes to run once

around a track. How long will it take her to run $8\frac{1}{2}$ laps?

A $19\frac{1}{8}$ minutes

B $19\frac{1}{4}$ minutes

C $18\frac{7}{8}$ minutes

D $18\frac{3}{4}$ minutes

Answers: 1. $2\frac{25}{14}$ 2. $3\frac{6}{1}$ 3. $5\frac{4}{1}$ 4. 15 5. $3\frac{21}{17}$ 6. 6 7. $6\frac{5}{3}$ 8. $25\frac{8}{2}$ 9. A