

Reteach

Divide Mixed Numbers

To divide mixed numbers, express each mixed number as an improper fraction. Then divide as with fractions.

Example 1 Find $1\frac{2}{3} \div \frac{3}{4}$.

$$\begin{aligned} 1\frac{2}{3} \div \frac{3}{4} &= \frac{5}{3} \div \frac{3}{4} \\ &= \frac{5}{3} \times \frac{4}{3} \\ &= \frac{20}{9} \text{ or } 2\frac{2}{9} \end{aligned}$$

Write the mixed number as an improper fraction.

Multiply by the reciprocal.

Simplify.

Example 2 Find $2\frac{2}{3} \div 1\frac{1}{5}$.

$$\begin{aligned} 2\frac{2}{3} \div 1\frac{1}{5} &= \frac{8}{3} \div \frac{6}{5} \\ &= \frac{8}{3} \times \frac{5}{6} \\ &= \frac{\cancel{8} \times 5}{3 \times \cancel{6}_3} \\ &= \frac{20}{9} \text{ or } 2\frac{2}{9} \end{aligned}$$

Estimate: $3 \div 1 = 3$

Write mixed numbers as improper fractions.

Multiply by the reciprocal, $\frac{5}{6}$.

Divide 8 and 6 by the GCF, 2.

Simplify. Compare to the estimate.

Exercises

Divide. Write in simplest form.

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

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

3. $5 \div 1\frac{3}{7}$

4. $2\frac{1}{3} \div \frac{7}{9}$

5. $5\frac{2}{5} \div \frac{9}{10}$

6. $2\frac{1}{4} \div \frac{2}{7}$

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

8. $7\frac{1}{2} \div 1\frac{2}{3}$

9. $1\frac{2}{3} \div 1\frac{1}{4}$

10. $4\frac{4}{5} \div 2\frac{6}{7}$

11. $5\frac{1}{10} \div 1\frac{8}{9}$

12. $2\frac{3}{8} \div 2\frac{1}{4}$

13. Simplify $6 \div 4\frac{3}{5}$.

14. Simplify $4\frac{2}{3} \div 1\frac{3}{4}$.