

## Dividing Mixed Numbers by Mixed Numbers

To divide a mixed number by a mixed number, write the mixed numbers as improper fractions. Invert the divisor and multiply. Cancel if possible. Simplify if needed.

**Find:**  $2\frac{1}{4} \div 3\frac{3}{8}$

<p>Write the mixed numbers as improper fractions.</p> $2\frac{1}{4} \div 3\frac{3}{8} = \frac{9}{4} \div \frac{27}{8}$	<p>Invert the divisor and multiply.</p> $\frac{9}{4} \times \frac{8}{27}$	<p>Cancel.</p> $\frac{\overset{1}{\cancel{9}}}{\cancel{4}} \times \frac{\overset{2}{\cancel{8}}}{\underset{3}{\cancel{27}}}$	<p>Multiply.</p> $\frac{1 \times 2}{1 \times 3} = \frac{2}{3}$
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**Divide. Cancel if possible. Simplify.**

1.  $4\frac{1}{4} \div 8\frac{1}{2} =$

$$\frac{17}{4} \div \frac{17}{2} = \frac{\overset{1}{\cancel{17}}}{\underset{2}{\cancel{4}}} \times \frac{\overset{1}{\cancel{2}}}{\underset{1}{\cancel{17}}} = \frac{1 \times 1}{2 \times 1} = \frac{1}{2}$$

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

$$\frac{11}{2} \div \frac{3}{2} = \frac{\overset{1}{\cancel{11}}}{\cancel{2}} \times \frac{\overset{1}{\cancel{2}}}{\underset{1}{\cancel{3}}} = \frac{11 \times 1}{1 \times 3} = \frac{11}{3} = 3\frac{2}{3}$$

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

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

$6\frac{1}{3} \div 1\frac{5}{6} =$

4.  $6\frac{2}{3} \div 2\frac{1}{5} =$

$8\frac{2}{3} \div 1\frac{1}{3} =$

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

5.  $8\frac{1}{2} \div 4\frac{1}{4} =$

$6\frac{4}{5} \div 1\frac{1}{5} =$

$4\frac{3}{4} \div 1\frac{1}{8} =$

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

$9\frac{7}{9} \div 1\frac{5}{6} =$

$3\frac{3}{8} \div 1\frac{1}{4} =$

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

$1\frac{3}{8} \div 3\frac{2}{3} =$

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

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

$4\frac{2}{9} \div 1\frac{7}{12} =$

$2\frac{1}{7} \div 4\frac{2}{7} =$

9.  $4\frac{3}{4} \div 1\frac{1}{8} =$

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

$2\frac{1}{4} \div 3\frac{3}{8} =$