

Multiplying Mixed Numbers and Fractions

To multiply a mixed number and a fraction, write the mixed number as an improper fraction. Use cancellation if possible. Multiply the new numerators and denominators. Simplify the answer.

Find: $\frac{2}{3} \times 5\frac{1}{4}$

<p>Write $5\frac{1}{4}$ as an improper fraction. Multiply the denominator 4 by the whole number: $4 \times 5 = 20$. Add the numerator: $20 + 1 = 21$. Place this new numerator over the old denominator: $5\frac{1}{4} = \frac{21}{4}$</p>	<p>Write the mixed number as an improper fraction.</p> $\frac{2}{3} \times 5\frac{1}{4} = \frac{2}{3} \times \frac{21}{4}$	<p>Cancel.</p> $\frac{\cancel{2}}{3} \times \frac{\cancel{21}}{4} =$	<p>Multiply the new numerators and denominators. Simplify.</p> $\frac{1 \times 7}{1 \times 2} = \frac{7}{2} = 3\frac{1}{2}$
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Multiply. Use cancellation if possible. Simplify.

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

$$\frac{1}{2} \times \frac{7}{2} = \frac{1 \times 7}{2 \times 2} = \frac{7}{4} = 1\frac{3}{4}$$

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

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

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

$\frac{2}{9} \times 4\frac{1}{2} =$

$\frac{3}{8} \times 2\frac{1}{9} =$

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

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

$\frac{5}{6} \times 3\frac{2}{5} =$

4. $\frac{12}{23} \times 5\frac{3}{4} =$

$\frac{9}{16} \times 2\frac{2}{3} =$

$\frac{7}{12} \times 4\frac{3}{7} =$

5. $3\frac{1}{2} \times \frac{3}{8} =$

$1\frac{7}{8} \times \frac{4}{15} =$

$2\frac{1}{3} \times \frac{4}{7} =$

6. $7\frac{2}{3} \times \frac{1}{2} =$

$4\frac{2}{3} \times \frac{3}{7} =$

$5\frac{1}{2} \times \frac{2}{11} =$

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

$9\frac{1}{2} \times \frac{1}{8} =$

$6\frac{3}{4} \times \frac{2}{9} =$

8. $2\frac{1}{3} \times \frac{6}{7} =$

$3\frac{3}{4} \times \frac{7}{12} =$

$1\frac{5}{6} \times \frac{3}{4} =$

9. $\frac{2}{9} \times 3\frac{3}{8} =$

$4\frac{1}{4} \times \frac{4}{17} =$

$3\frac{5}{8} \times \frac{5}{6} =$