

Multiplying Mixed Numbers

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$$7\frac{1}{7} \times 5\frac{5}{6} = \frac{50}{7} \times \frac{35}{6} = \frac{1750}{42}$$

Make into an improper fraction.

$$\begin{array}{r} 50 \\ \times 35 \\ \hline 250 \\ 1500 \\ \hline 1750 \end{array}$$

$$42 \overline{) 1750} \begin{array}{r} 41 \\ \underline{-168} \\ 670 \\ \underline{-670} \\ 0 \end{array}$$

$$41 \frac{28}{42} \div 7 = 41 \frac{4}{6} \div 2 = 41 \frac{2}{3}$$

Prime factorization

$$\frac{50}{7} \times \frac{35}{6} = \frac{5 \times 5 \times \cancel{2}}{7} \times \frac{\cancel{2} \times 5}{\cancel{2} \times 3} = \frac{125}{3}$$

$$3 \overline{) 125} \begin{array}{r} 41 \\ \underline{-12} \\ 5 \\ \underline{-3} \\ 2 \end{array}$$

$$1\frac{1}{3} \times 2\frac{2}{3} \quad 4\frac{1}{3} \times 8\frac{1}{3} = 32/9 \quad 9 \overline{) 32} \begin{array}{r} 3 \\ \underline{-27} \\ 5 \end{array}$$

$$4\frac{1}{3} \times 8\frac{1}{3} \quad \frac{2 \times 2}{3} \quad \frac{2 \times 2 \times 2}{3} \quad \frac{35}{9}$$

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