

Improper fractions to Mixed Numbers

Improper fraction: when the numerator is larger than the denominator. Ex: $\frac{10}{9}$

Mixed number: a whole number and a fraction.
Ex: $3\frac{2}{3}$

There are 2 ways to convert.

Strategy #1: $\frac{10}{9} \rightarrow 9 \overline{)10} \begin{array}{r} 1 \\ -9 \\ \hline 1 \end{array} \begin{array}{l} \uparrow \\ \frac{1}{9} \end{array} = \text{Answer is } 1\frac{1}{9}$

Another example: $\frac{15}{11} \begin{array}{r} 1 \\ 11 \overline{)15} \\ -11 \\ \hline 4 \end{array} \begin{array}{l} \uparrow \\ \frac{4}{11} \end{array} = 1\frac{4}{11} \quad \text{or} \quad \frac{15}{5} \quad 5 \overline{)15} \begin{array}{r} 3 \\ -15 \\ \hline 0 \end{array} = 3$

Strategy #2: $\frac{22}{3}$ Make as many whole numbers as you can first.

$$\frac{3}{3} + \frac{3}{3} + \frac{3}{3} + \frac{3}{3} + \frac{3}{3} + \frac{3}{3} + \frac{3}{3} = \frac{21}{3} \quad (7 \text{ wholes})$$

$$\frac{21}{3} + \frac{1}{3} = \frac{22}{3}$$

This was 7 wholes and $\frac{1}{3}$ more.

Answer = $7\frac{1}{3}$