

Worked Examples

1. The population of Allentown is $3\frac{2}{5}$ times the size of Bartonville. Express this mixed number as an improper fraction (as a ratio of two numbers).

$$3\frac{2}{5} = 3 + \frac{2}{5} = \frac{15}{5} + \frac{2}{5} = \boxed{\frac{17}{5}}$$

Why it works: $3\frac{2}{5} = 3 + \frac{2}{5} = \frac{3}{1} + \frac{2}{5} = \frac{3 \cdot 5}{1 \cdot 5} + \frac{2}{5} = \frac{15}{5} + \frac{2}{5} = \frac{17}{5}$

check: $\frac{17}{5} = 17 \div 5$

$$\begin{array}{r} 3\frac{2}{5} \\ 5 \overline{)17} \\ \underline{15} \\ 2 \end{array}$$

2. Express this $7\frac{3}{8}$ as an improper fraction.

$$7\frac{3}{8} = 7 + \frac{3}{8} = \frac{56}{8} + \frac{3}{8} = \boxed{\frac{59}{8}}$$

check: $7\frac{3}{8}$

$$\begin{array}{r} 7\frac{3}{8} \\ 8 \overline{)59} \\ \underline{56} \\ 3 \end{array}$$

Objective: Rewrite a mixed number as an improper fraction.