

Lesson 23 : Subtracting Mixed Numbers with Regrouping

Ex A: There are $3\frac{1}{5}$ pies on the shelf. If the baker takes away $1\frac{2}{5}$ pies, how many pies will be on the shelf?

$1 = \frac{5}{5}$
 $2\frac{1}{5} = \frac{6}{5}$
 $2\frac{1}{5} + \frac{5}{5} = 2\frac{6}{5}$
 $2\frac{6}{5} - 1\frac{2}{5} = 1\frac{4}{5}$

$2\frac{6}{5}$
 $- 1\frac{2}{5}$
 $\hline 1\frac{4}{5} \text{ pie}$

Now that we regrouped remove $1\frac{2}{5}$

Ex B: Simplify: $4\frac{1}{6} - 2\frac{5}{6}$ ~~$3\frac{1}{6} + \frac{6}{6} = 3\frac{7}{6}$~~

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

$$1 = \frac{6}{6}$$

$$\begin{array}{r} 3\frac{1}{6} \\ - 2\frac{5}{6} \\ \hline \end{array}$$

$$\begin{array}{r} 3\frac{6}{6} \\ - 2\frac{5}{6} \\ \hline \end{array}$$

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

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

$$1\frac{2}{6} \div 2 = \boxed{1\frac{1}{3}}$$

Ex C: Simplify: $72\frac{2}{5}\% - 31\frac{4}{5}\%$

$$\begin{array}{r} 71\frac{7}{5} \\ - 31\frac{4}{5} \\ \hline 40\frac{3}{5}\% \end{array}$$