

Each small cake takes $\frac{3}{4}$ of a cup of frosting. If Betty wants to make 24 small cakes, how much frosting will she need?

$$\begin{array}{r} 3/4 \\ 3/4 \\ + 3/4 \\ \hline 3/4 \end{array} \left. \begin{array}{l} \\ \\ \\ \end{array} \right\} 12 \frac{3}{4}$$
$$+ \begin{array}{r} 3/4 \\ 3/4 \\ \hline 3/4 \end{array} \left. \begin{array}{l} \\ \\ \\ \end{array} \right\} 12 \frac{3}{4}$$
$$\frac{3}{4} \times 8 = 24 \text{ cups}$$

If you do that addition problem 6 times you would have 18 cups of frosting.

Each small cake takes $\frac{3}{4}$ of a cup of frosting. If Betty wants to make 24 small cakes, how much frosting will she need?

Handwritten work showing two methods to solve the problem:

Method 1: Multiplication

$$\begin{array}{r}
 5 \frac{1}{4} \\
 \times 3 \\
 \hline
 15 \frac{3}{4} \text{ cups}
 \end{array}$$

Method 2: Addition

3 = 21
 7 cakes

$$\begin{array}{r}
 3/4 \\
 -3/4 \\
 +3/4 \\
 -3/4 \\
 +3/4 \\
 -3/4 \\
 +3/4 \\
 -3/4 \\
 +3/4 \\
 \hline
 21/4 = 5 \frac{1}{4} \text{ cups}
 \end{array}$$

Method 3: Addition of mixed numbers

$$\begin{array}{r}
 15 \frac{3}{4} \\
 + 2 \frac{1}{4} \\
 \hline
 17 \frac{4}{4}
 \end{array}$$

The final result is $17 \frac{4}{4}$ cups, which is equivalent to 18 cups.