G5-M3-Lesson 11

1. Generate equivalent fractions to get like units and then, subtract.

a. $\frac{3}{4} - \frac{1}{3}$

$= \frac{9}{12} - \frac{4}{12}$

$= \frac{5}{12}$

I can rename fourths and thirds as twelfths in order to subtract. $\frac{3}{4} = \frac{9}{12}$ and $\frac{1}{3} = \frac{4}{12}$.

9 twelfths − 4 twelfths = 5 twelfths

b. $3\frac{4}{5} - 2\frac{1}{2}$

I can rename halves and fifths as tenths to subtract. I can solve this problem in several different ways.

Method 1:

I can rewrite the mixed numbers with a common denominator of 10. $3\frac{4}{5} = 3\frac{8}{10}$, and $2\frac{1}{2} = 2\frac{5}{10}$.

$3\frac{4}{5} - 2\frac{1}{2}$

$= 3\frac{8}{10} - 2\frac{5}{10}$

$= 1\frac{3}{10}$

Now, I can subtract the whole numbers and then the fractions. $3 - 2 = 1$, and $\frac{8}{10} - \frac{5}{10} = \frac{3}{10}$.

The answer is $1 + \frac{3}{10}$, or $1\frac{3}{10}$.

Method 2:

I can subtract the whole numbers first. $3 - 2 = 1$

$3\frac{4}{5} - 2\frac{1}{2}$

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

$= 1\frac{8}{10} - \frac{5}{10}$

$= 1\frac{3}{10}$

Then, I can rename the fractions using a common denominator of 10. $1\frac{4}{5} = 1\frac{8}{10}$, and $\frac{1}{2} = \frac{5}{10}$.

I can subtract the fractions. $\frac{8}{10} - \frac{5}{10} = \frac{3}{10}$

The difference is $1\frac{3}{10}$.

Method 3:

I can also decompose $3\frac{4}{5}$ into two parts using a number bond.

$3\frac{4}{5} - 2\frac{1}{2}$

3 $\quad$ $\frac{4}{5}$

Now, I can easily subtract $2\frac{1}{2}$ from 3.

$3 - 2\frac{1}{2} = \frac{1}{2}$

After subtracting $2\frac{1}{2}$, I can add the remaining fractions, $\frac{1}{2}$ and $\frac{4}{5}$.

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

$= \frac{5}{10} + \frac{8}{10}$

I can rename these fractions as tenths in order to add.

$\frac{1}{2} = \frac{5}{10}$, and $\frac{4}{5} = \frac{8}{10}$.

$= \frac{13}{10}$

$= 1\frac{3}{10}$

The sum of 5 tenths and 8 tenths is 13 tenths. $\frac{13}{10} = \frac{10}{10} + \frac{3}{10} = 1\frac{3}{10}$

Method 4:

I could also rename the mixed numbers as fractions greater than one.

$3\frac{4}{5} = \frac{15}{5} + \frac{4}{5} = \frac{19}{5}$, and

$2\frac{1}{2} = \frac{4}{2} + \frac{1}{2} = \frac{5}{2}$.

$3\frac{4}{5} - 2\frac{1}{2}$

$= \frac{19}{5} - \frac{5}{2}$

$= \frac{38}{10} - \frac{25}{10}$

Then, I can rename the fractions greater than one with the common denominator of 10.

$\frac{19}{5} = \frac{38}{10}$, and $\frac{5}{2} = \frac{25}{10}$.

$= \frac{13}{10}$

$= 1\frac{3}{10}$

38 tenths minus 25 tenths is 13 tenths.

$\frac{13}{10} = \frac{10}{10} + \frac{3}{10} = 1\frac{3}{10}$.