G5-M3-Lesson 14

1. Rearrange the terms so that you can add or subtract mentally, and then solve.

   a. $2\frac{1}{3} - \frac{3}{5} + \frac{2}{3} = \left(2\frac{1}{3} + \frac{2}{3}\right) - \frac{3}{5}$

   > The associative property allows me to rearrange these terms so that I can add the like units first.

   $= 3 - \frac{3}{5}$

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

   > Wow! This is actually a really basic problem now!

   b. $8\frac{3}{4} - 2\frac{2}{5} - 1\frac{1}{5} - \frac{3}{4} = \left(8\frac{3}{4} - \frac{3}{4}\right) - \left(2\frac{2}{5} + 1\frac{1}{5}\right)$

   > This expression has fourths and fifths. I can use the associative property to rearrange the like units together.

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

   $= 5 - \frac{3}{5}$

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

   > Subtracting $2\frac{2}{5}$ and then subtracting $1\frac{1}{5}$ is the same as subtracting $3\frac{3}{5}$ all at once.

2. Fill in the blank to make the statement true.

   > In order to add fourths and thirds, I need a common unit. I can rename both fractions as twelfths.

   a. $3\frac{1}{4} + 2\frac{2}{3} + 3\frac{1}{12} = 9$

   $3\frac{3}{12} + 2\frac{8}{12} + \underline{\hspace{1cm}} = 9$

 $5\frac{11}{12} + \underline{\hspace{1cm}} = 9$

   $5\frac{11}{12} + 3\frac{1}{12} = 9$

   > I could solve this by subtracting $5\frac{11}{12}$ from 9, but I'm going to count on from $5\frac{11}{12}$ instead.

   > $5\frac{11}{12}$ needs $\frac{1}{12}$ more to make 6. And then, 6 needs 3 more to make 9. So, $5\frac{11}{12} + 3\frac{1}{12} = 9$.

   $$5\frac{11}{12} \xrightarrow{\ +\frac{1}{12}\ } 6 \xrightarrow{\ +3\ } 9$$

Lesson 14:   Strategize to solve multi-term problems.

EUREKA MATH

When I look at this equation, I think, "There is *some number* that, when I subtract $2\frac{1}{2}$ and 15 from it, there is still $17\frac{1}{4}$ remaining." This helps me to visualize a tape diagram like this:

some number (?)

$2\frac{1}{2}$	15	$17\frac{1}{4}$

part   *part*   *part remaining*
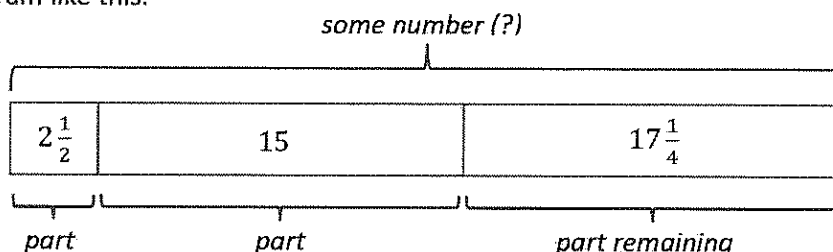
b. $\underline{34\frac{3}{4}} - 2\frac{1}{2} - 15 = 17\frac{1}{4}$

Therefore, if I add together these 3 parts, I can find out what that missing number is.

$2\frac{1}{2} + 15 + 17\frac{1}{4}$

$= 34 + \left(\frac{1}{2} + \frac{1}{4}\right)$

I can add the whole numbers and then add the fractions.

$= 34\frac{3}{4}$

I can rename $\frac{1}{2}$ as $\frac{2}{4}$ in my head in order to add like units.