G5-M3-Lesson 7

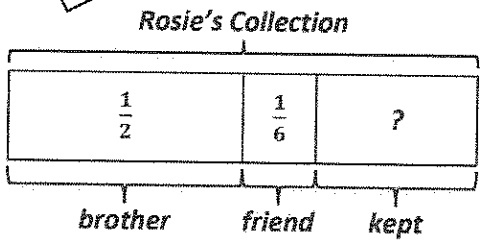
RDW means "Read, Draw, Write." I **read** the problem several times. I **draw** something each time I read. I remember to **write** the answer to the question.

Solve the word problems using the RDW strategy.

1. Rosie has a collection of comic books. She gave $\frac{1}{2}$ of them to her brother. Rosie gave $\frac{1}{6}$ of them to her friend, and she kept the rest. How much of the collection did Rosie keep for herself?

If I subtract $\frac{1}{2}$ and $\frac{1}{6}$ from 1, I can find how much of the collection Rosie kept for herself.

I can draw a tape diagram to model this problem.



$$1 - \frac{1}{2} - \frac{1}{6}$$

$$= \frac{1}{2} - \frac{1}{6}$$

$$= \frac{3}{6} - \frac{1}{6}$$

$$= \frac{2}{6}$$

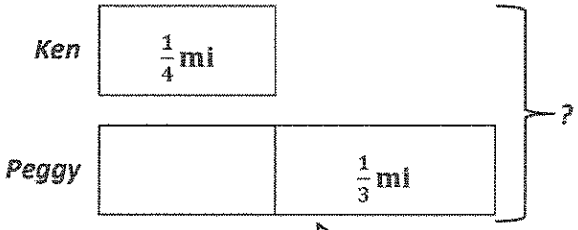
I've been doing so much of this that now I can rename some fractions in my head. I know that $\frac{1}{2} = \frac{3}{6}$.

Rosie kept $\frac{2}{6}$ or $\frac{1}{3}$ of the collection for herself.

When I think of this another way, I know that my solution makes sense. I can think $\frac{1}{2} + \frac{1}{6} +$ "how much more" is equal to 1?

$$\frac{1}{2} + \frac{1}{6} + ? = 1 \quad \rightarrow \quad \frac{3}{6} + \frac{1}{6} + \frac{2}{6} = \frac{6}{6} = 1$$

2. Ken ran for $\frac{1}{4}$ mile. Peggy ran $\frac{1}{3}$ mile farther than Ken. How far did they run altogether?



To find the distance they ran altogether, I'll add Ken's distance ($\frac{1}{4}$ mile) to Peggy's distance ($\frac{1}{4}$ mile + $\frac{1}{3}$ mile).

My tape diagram shows that Peggy ran the same distance as Ken plus $\frac{1}{3}$ mile farther.

$$\frac{1}{4}+\frac{1}{4}+\frac{1}{3}$$
$$=\frac{1}{2}+\frac{1}{3}$$
$$=\frac{3}{6}+\frac{2}{6}$$
$$=\frac{5}{6}$$

I could rename all of these as a number of twelfths, but I know that $\frac{1}{4}+\frac{1}{4}=\frac{2}{4}$, which is equal to $\frac{1}{2}$.

Now, I can rename these halves and thirds as sixths. I can do this renaming mentally!

Ken and Peggy ran $\frac{5}{6}$ mile altogether.