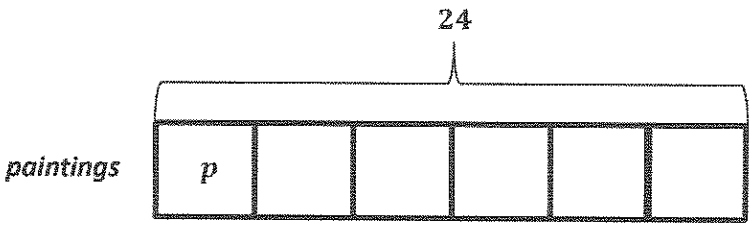
G3-M7-Lesson 1

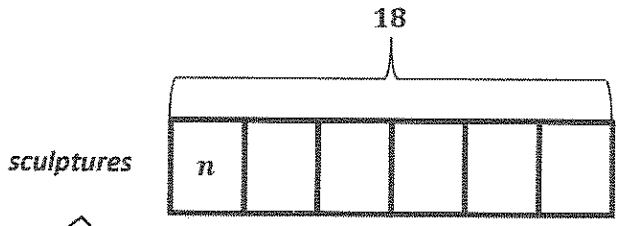
1. A museum uses 6 trucks to move paintings and sculptures to a new location. They move a total of 24 paintings and 18 sculptures. Each truck carries an equal number of paintings and an equal number of sculptures. How many paintings and how many sculptures are in each truck?

I can use the Read-Draw-Write (RDW) process to solve. As I read the problem, I can visualize a picture of the problem in my mind. I know it's helpful to reread the problem in case I missed anything or didn't understand the information completely. Then I can ask myself, "What can I draw?"



p represents the number of paintings in each truck

$24 \div 6 = p$
$p = 4$



n represents the number of sculptures in each truck

$18 \div 6 = n$
$n = 3$

I can figure out what information is known and unknown using my drawing. I can represent my unknowns using letters. I know there are a total of 24 paintings and 18 sculptures. They are equally placed into 6 trucks. I know the totals and that the number of groups is 6. So my unknown is the size of each group.

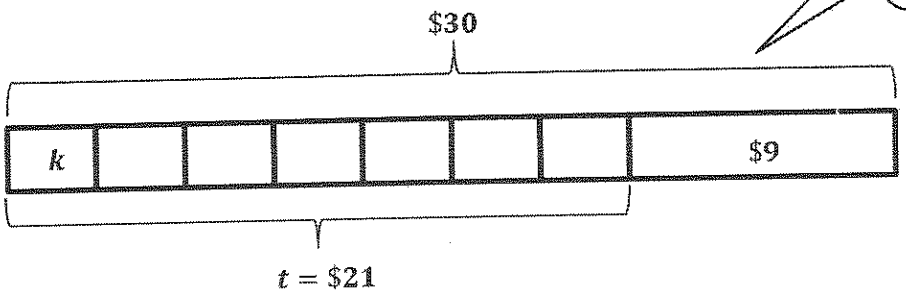
Next, I can write number sentences based on my drawings.

There are 4 paintings and 3 sculptures in each truck.

The final step of the Read-Draw-Write (RDW) process is to write a sentence with words to answer the problem. I can reread the question to be sure that my sentence answers it. This also gives me a chance to look back at my calculation to make sure that my answer is reasonable.

2. Christopher's father gives the cashier \$30 to pay for 7 keychains from the gift shop. The cashier gives him \$9 in change. How much does each keychain cost?

I know there are many ways to draw and solve this problem, but I want to draw a model that is most helpful to me.



t represents the total cost of 7 keychains

$\$30 - \$9 = t$

$t = \$21$

k represents the cost of each keychain

$\$21 \div 7 = k$

$k = \$3$

This time I choose to draw only one tape diagram and label both unknowns with letters. I know I first need to solve for t, and then I can solve for k. Labeling the unknowns with different letters helps me differentiate the two unknowns easily.

Each keychain costs \$3.

Now I can write my number sentences and a statement that answers the question.