Eureka Math

3rd Grade
Module 1
Lesson 20

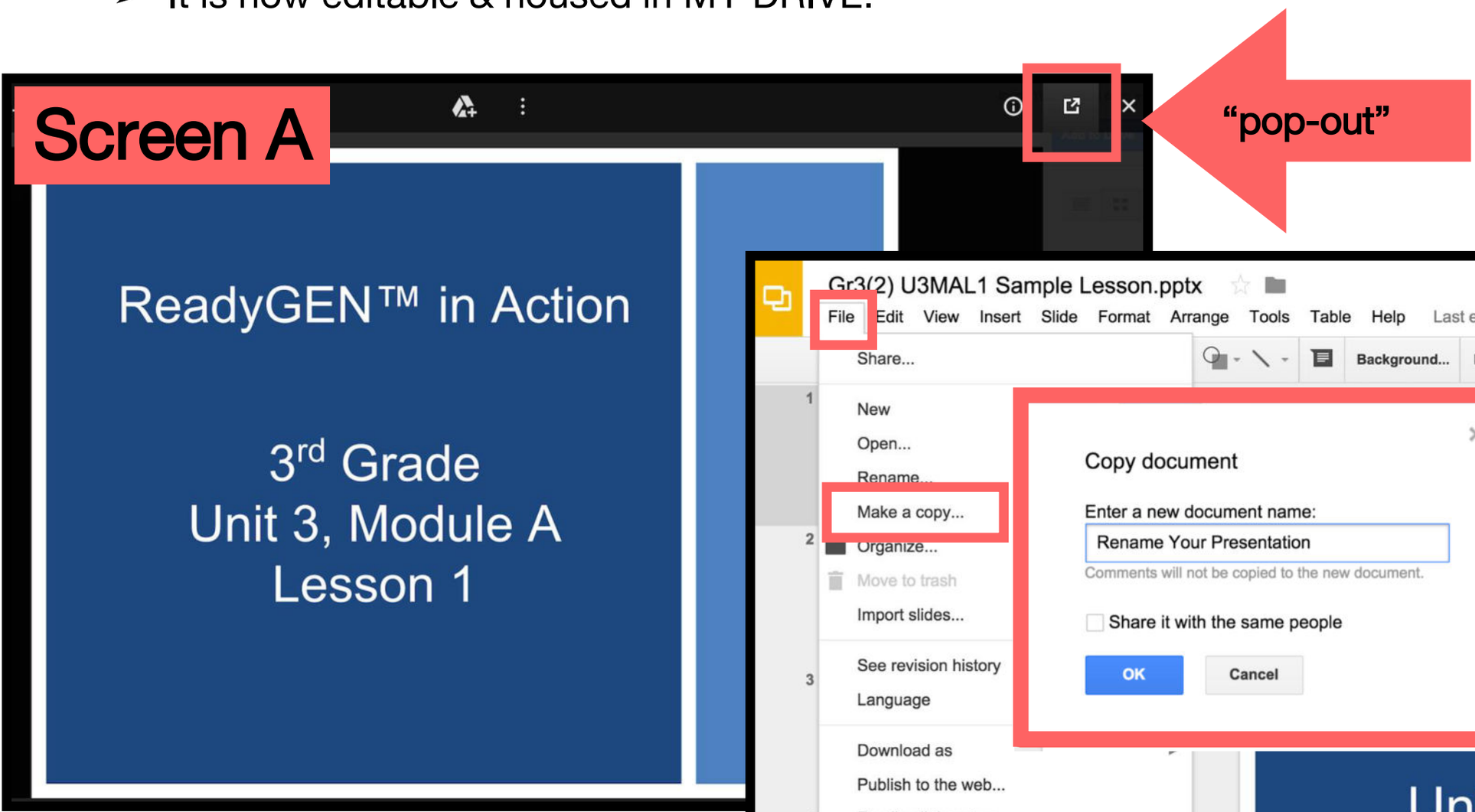
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

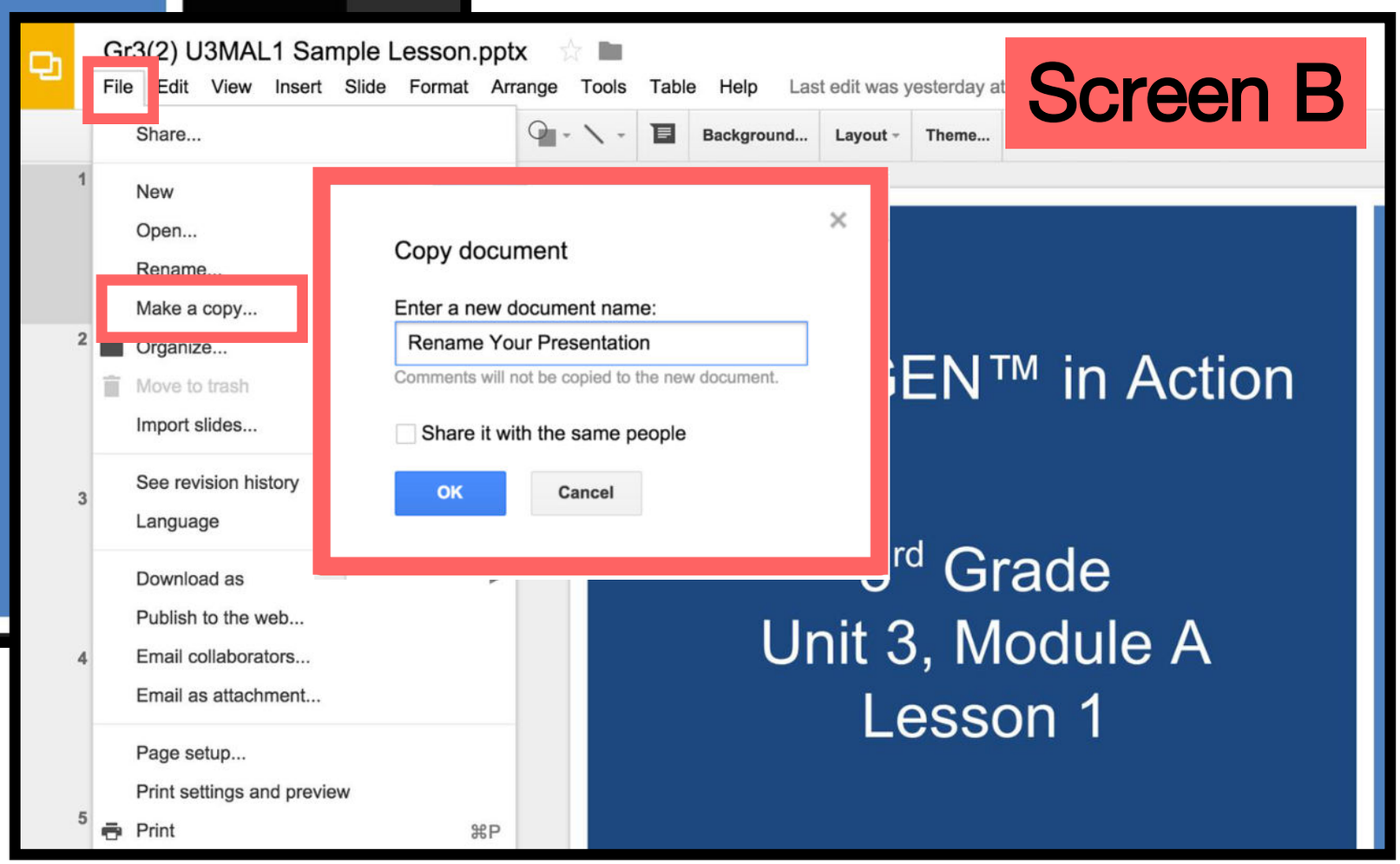
Directions for customizing presentations are available on the next slide.

Customize this Slideshow

Reflecting your Teaching Style and Learning Needs of Your Students

- When the Google Slides presentation is opened, it will look like Screen A.
- Click on the “pop-out” button in the upper right hand corner to change the view.
- The view now looks like Screen B.
- Within Google Slides (not Chrome), choose FILE.
- Choose MAKE A COPY and rename your presentation.
- Google Slides will open your renamed presentation.
- It is now editable & housed in MY DRIVE.



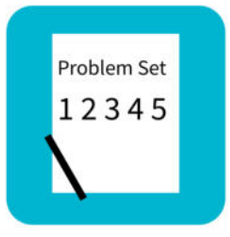


Icons

Read, Draw, Write

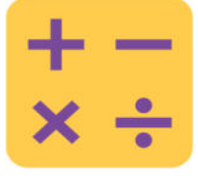
Learning Target

Personal White Board



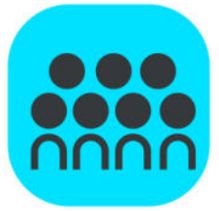
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

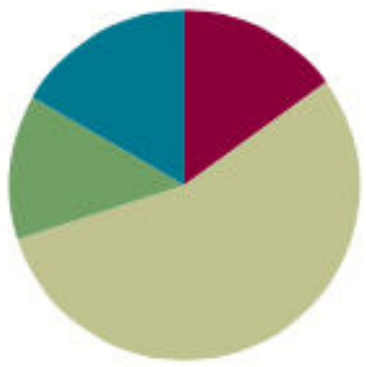
Small Group Time

Lesson 20

Objective: Solve two-step word problems involving multiplication and division, and assess the reasonableness of answers.

Suggested Lesson Structure

Fluency Practice	(9 minutes)
Application Problem	(8 minutes)
Concept Development	(33 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



I can understand solve two-step word problems involving multiplication and division, and assess the reasonableness of answers.

Skip-Count by 5

Number Correct: _____

A

Skip-Count by 5

1.	0, 5, __	
2.	5, 10, __	
3.	10, 15, __	
4.	15, 20, __	
5.	20, 25, __	

23.	35, __, 45	
24.	15, __, 25	
25.	40, __, 50	
26.	25, __, 15	
27.	50, __, 40	

Skip-Count by 5

Count by **fours** to 40, hum/talk forward and backward.

(Hum as you think 1, 2, 3; say 4. Hum as you think 5, 6, 7; say 8, etc.)

Count up

Count down

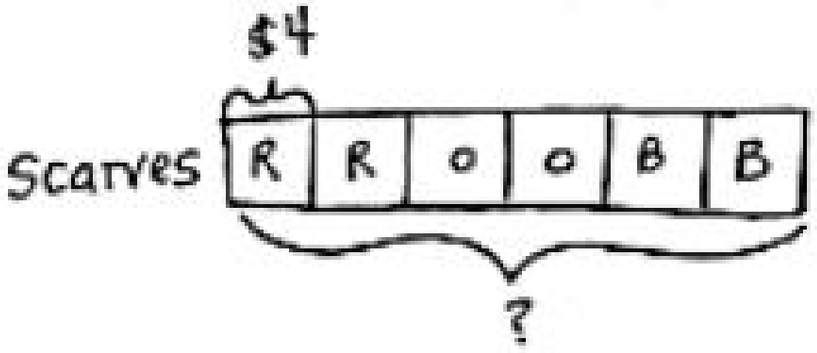
Application Problem

Red, orange, and blue scarves are on sale for $4 each. Nina buys 2 scarves of each color. How much does she spend altogether?

RDW

Application Problem

Red, orange, and blue scarves are on sale for $4 each. Nina buys 2 scarves of each color. How much does she spend altogether?



2 + 2 + 2 = 6 scarves

6 x $4 = $24

Nina spends $24.

RDW

Model a two-step problem with tape diagrams

Red, orange, and blue scarves are on sale for $4 each. Nina buys 2 scares of each color. She also buys a hat that costs $4. How much does she spend altogether.

Complete this new problem with the Application you just solved. What's different?

Model a two-step problem with tape diagrams

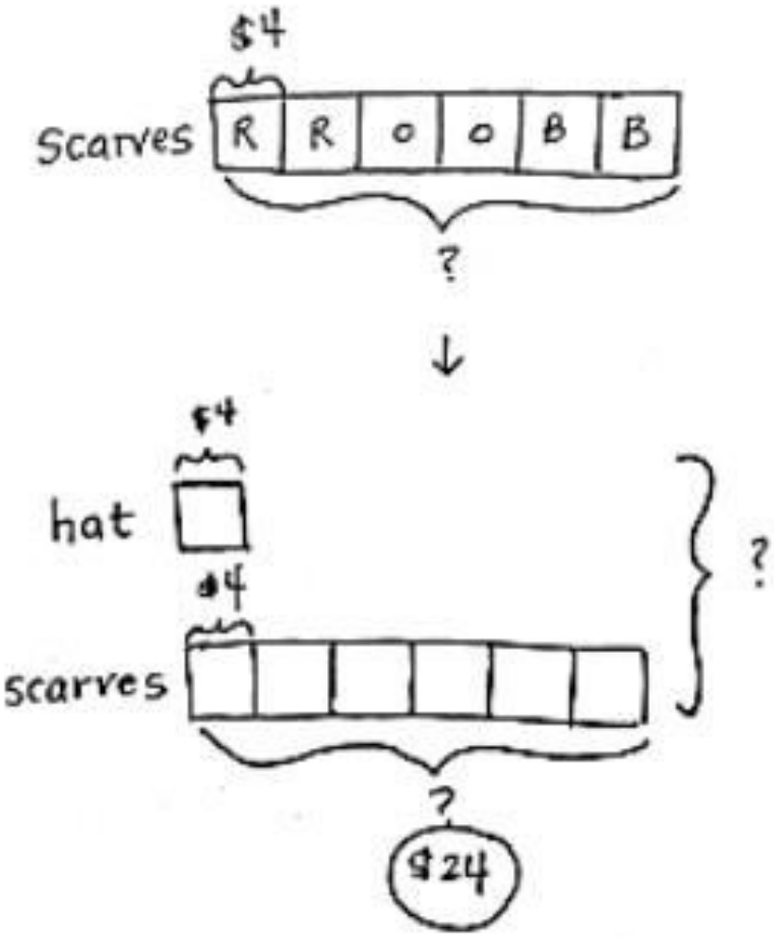
How can we use our answer from the Application Problem to help solve the new problem?

Model a two-step problem with tape diagrams

This tape diagram shows the Application Problem.

Each of these boxes is one unit. Tell me what one unit represents.

What is the value of 1 unit?

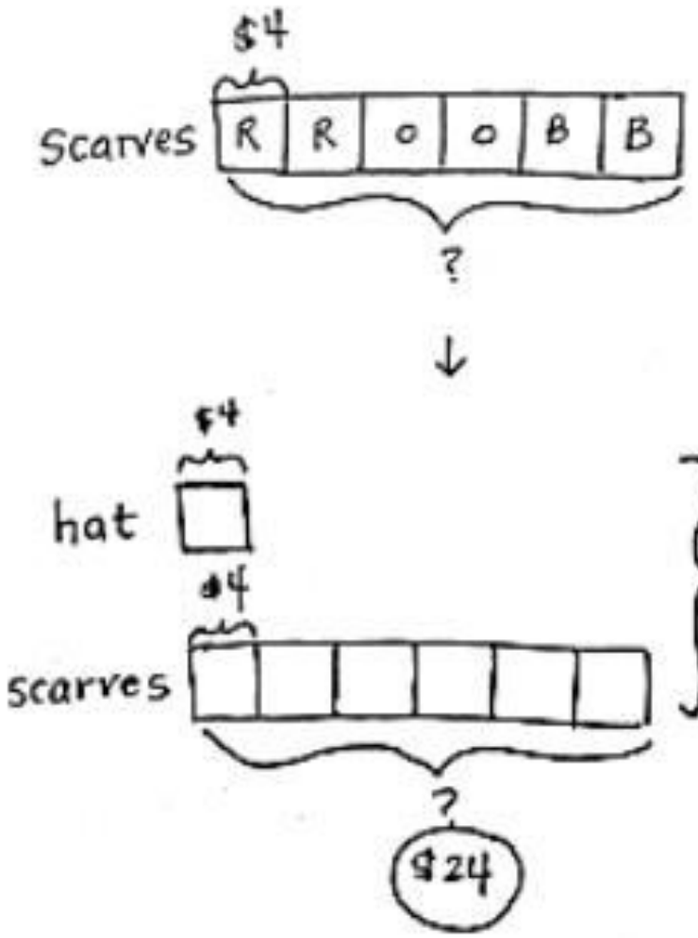


Model a two-step problem with tape diagrams

What do the 6 units represent?

How did you label the 6 units?

What equation did you find the total of all the items?

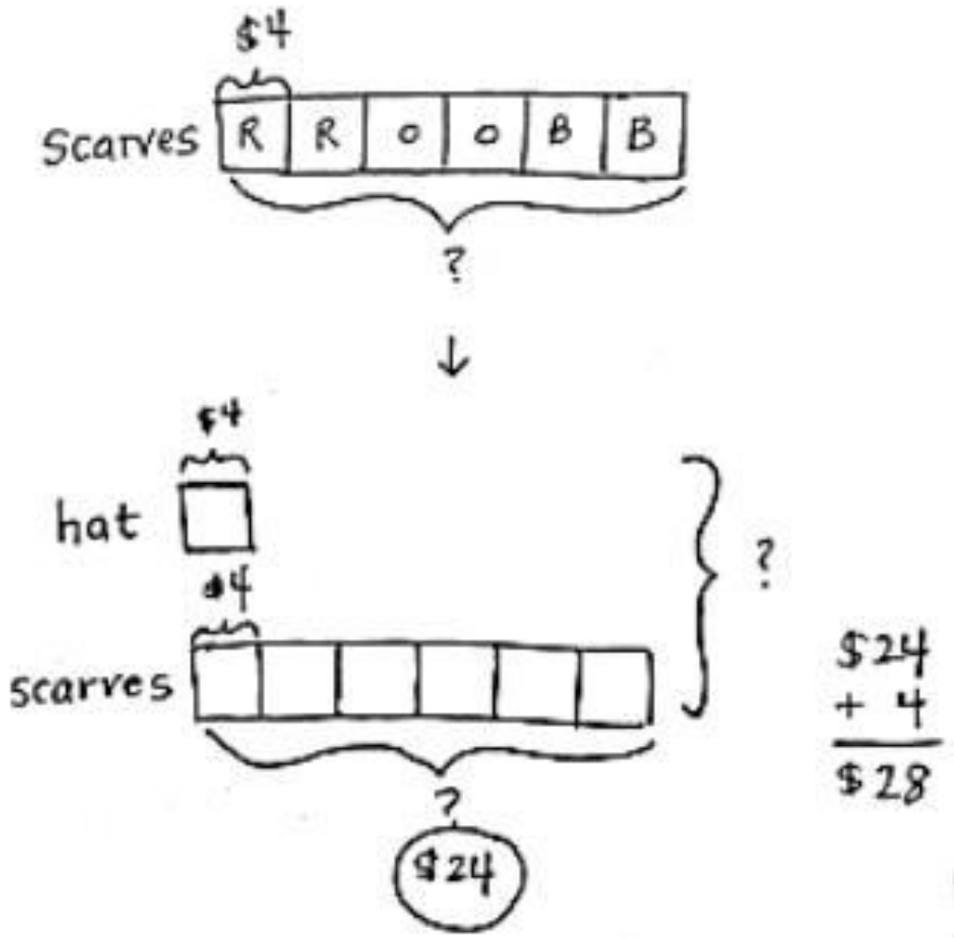


Model a two-step problem with tape diagrams

6 x $4 = $24

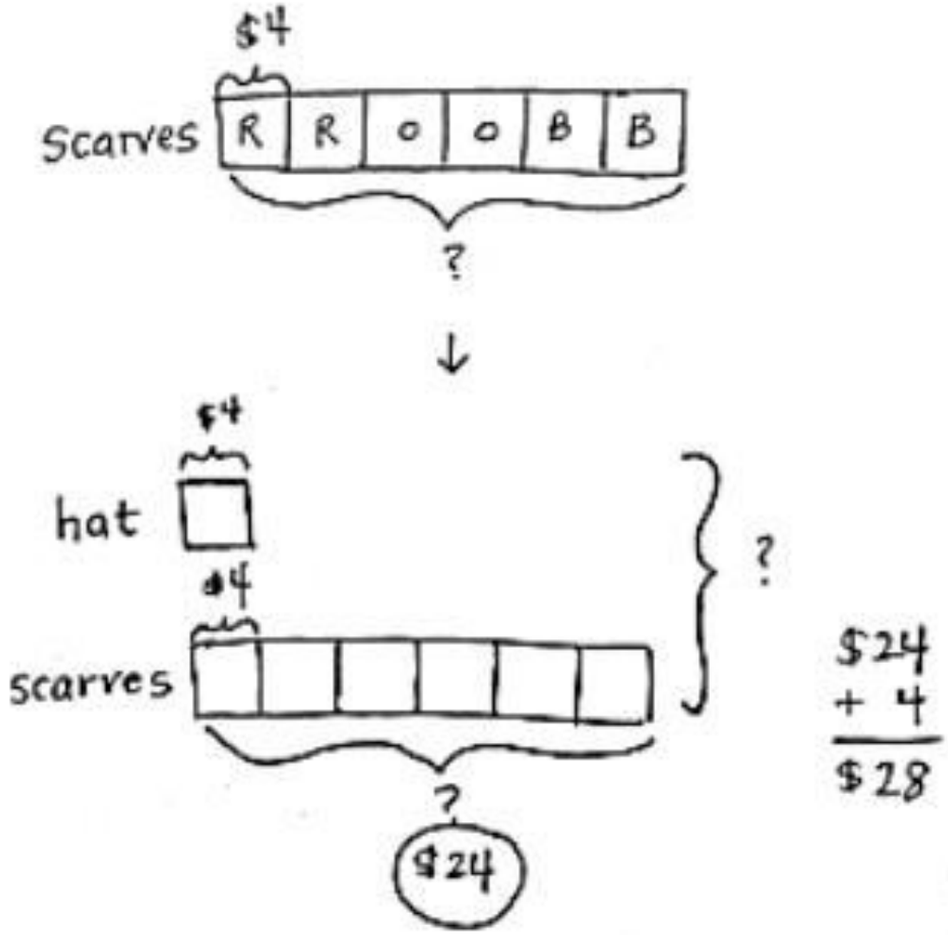
Now, I add the cost of the hat, $4, to the total cost of the scarves, $24, which is…?

How many units did we add together to find the total of both items?



Model a two-step problem with tape diagrams

Tell your partner a multiplication sentence you could use to find the total cost of the scarves and hat without finding the value of the scarves first.



Model a two-step problem with tape diagrams

Mr. Lim buys 7 plants for his garden. Each plant costs $5. The next day, he buys a rose bush that also costs $5. How much more do the 7 plants cost than the rose bush?

What information is known from reading the story?

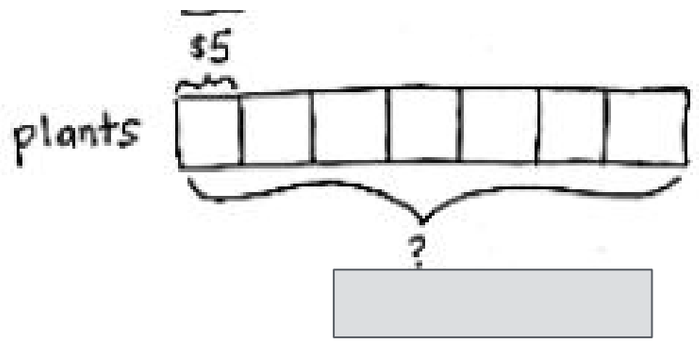
What information is unknown?

Model a two-step problem with tape diagrams

Mr. Lim buys 7 plants for his garden. Each plant costs $5. The next day, he buys a rose bush that also costs $5. How much more do the 7 plants cost than the rose bush?

Notice there are two unknowns in the problem. Let's first draw and label a tape diagram to model the unknown as the cost of the 7 plants.

Tell me how to find the cost of the plants.



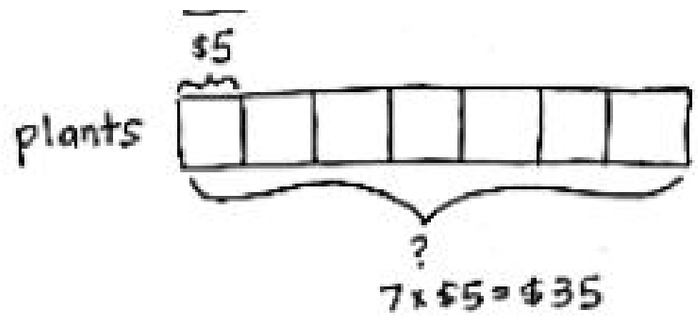
Model a two-step problem with tape diagrams

Mr. Lim buys 7 plants for his garden. Each plant costs $5. The next day, he buys a rose bush that also costs $5. How much more do the 7 plants cost than the rose bush?

The plant cost…

Have we answered the problem?

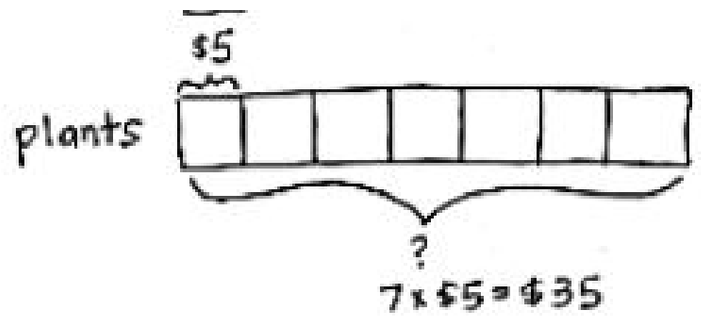
What is the question we are trying to answer?



Model a two-step problem with tape diagrams

Mr. Lim buys 7 plants for his garden. Each plant costs $5. The next day, he buys a rose bush that also costs $5. How much more do the 7 plants cost than the rose bush?

Tell your partner what strategy you might use to answer the question.

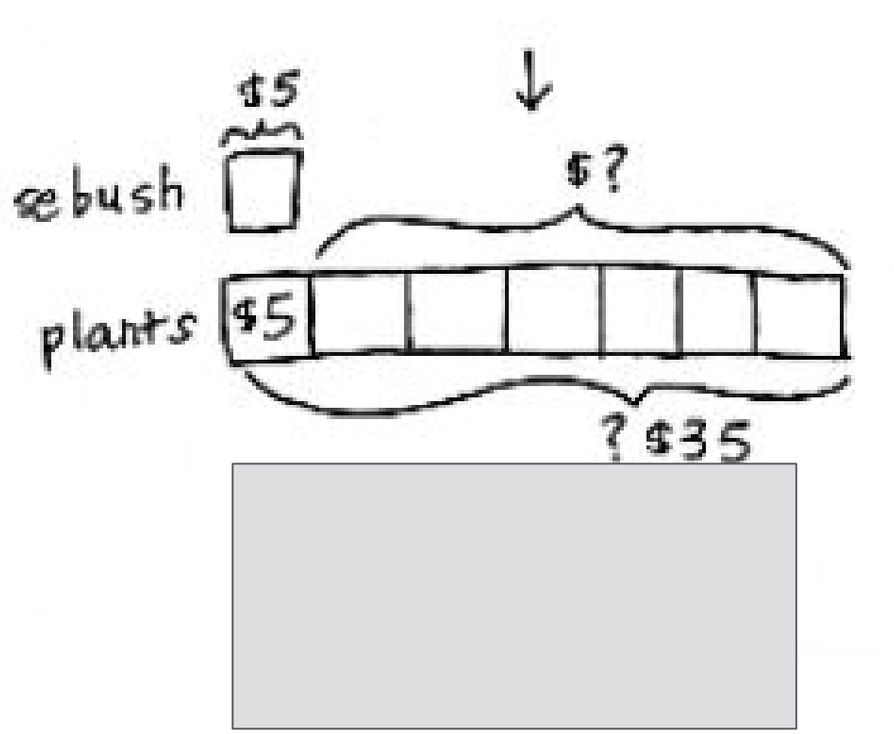


Model a two-step problem with tape diagrams

Mr. Lim buys 7 plants for his garden. Each plant costs $5. The next day, he buys a rose bush that also costs $5. How much more do the 7 plants cost than the rose bush?

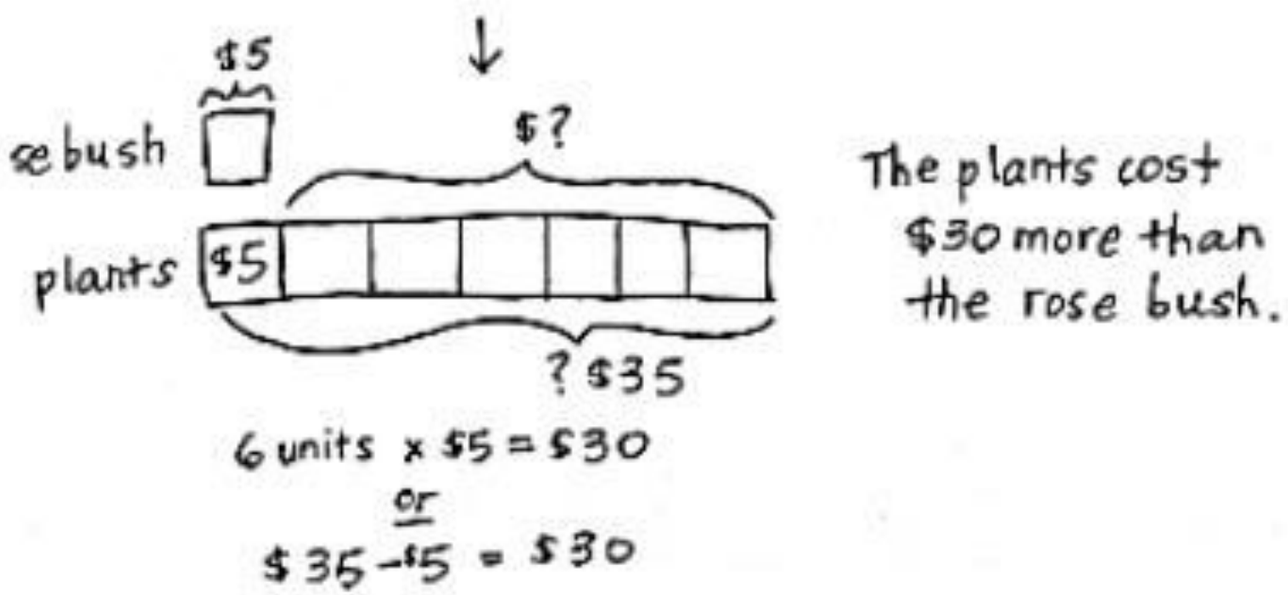
Write an equation and solve the problem on your personal white board.

Reread the question.
Have we answered it?



Model a two-step problem with tape diagrams

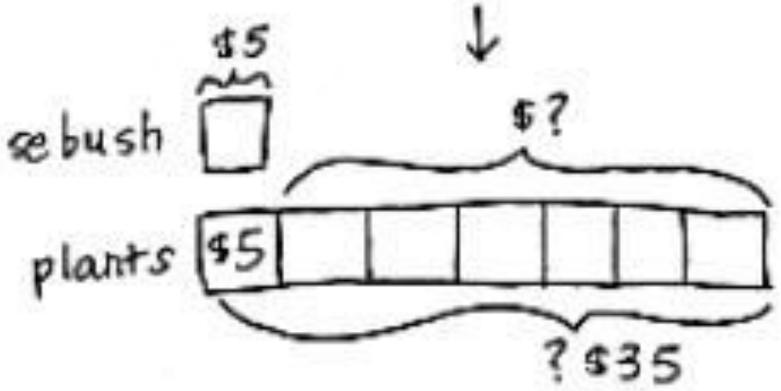
Mr. Lim buys 7 plants for his garden. Each plant costs $5. The next day, he buys a rose bush that also costs $5. How much more do the 7 plants cost than the rose bush?



Is $30 a reasonable answer? Why or why not?

Model a two-step problem with tape diagrams

We drew two models because the problem has two steps. How does this model represent the whole problem on its own?

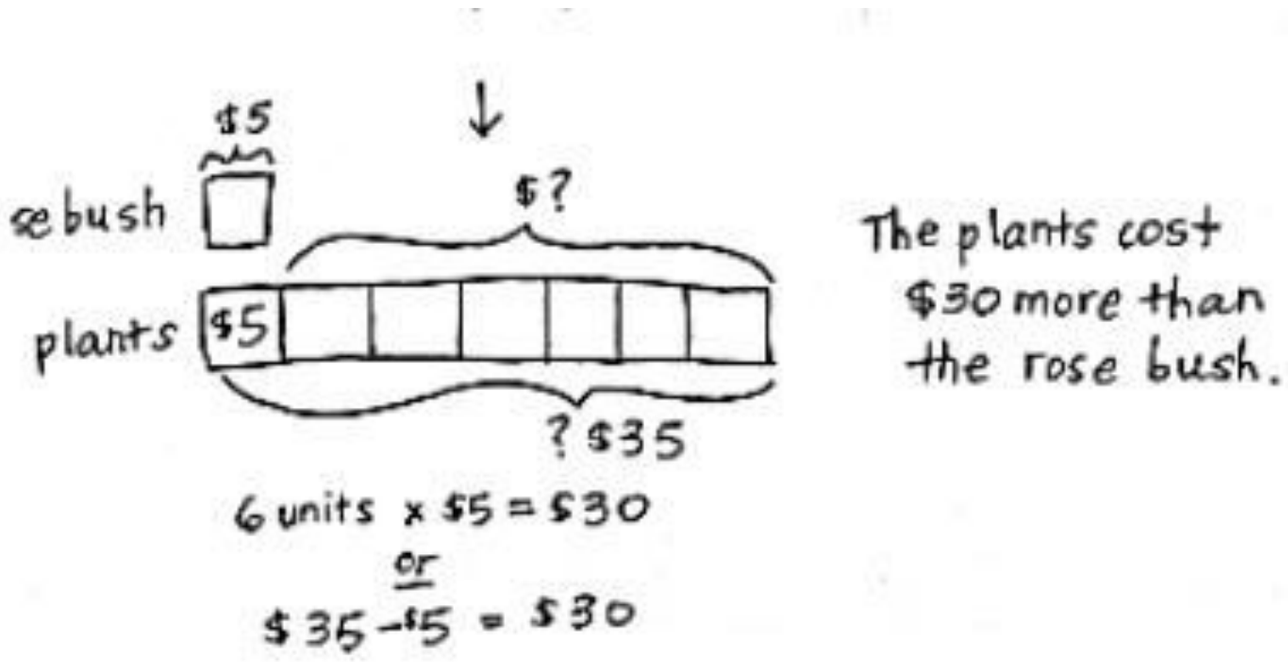


The plants cost $30 more than the rose bush.

Model a two-step problem with tape diagrams

Given what you know, is it necessary to find the total costs of the plants? Why or why not?

Explain to your partner the difference between the two ways of solving this problem.



Model a two-step problem with tape diagrams

Ten children equally share 40 almonds. How many almonds will 3 children get?

What information is known?

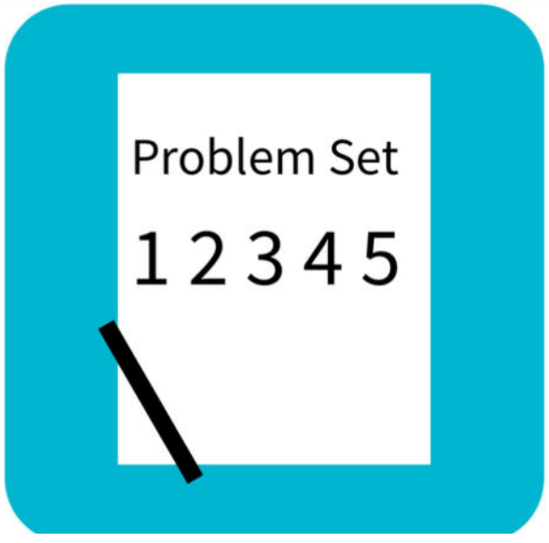
What is unknown?

In order to solve, what do you need to find first?

Model a two-step problem with tape diagrams

Ten children equally share 40 almonds. How many almonds will 3 children get?

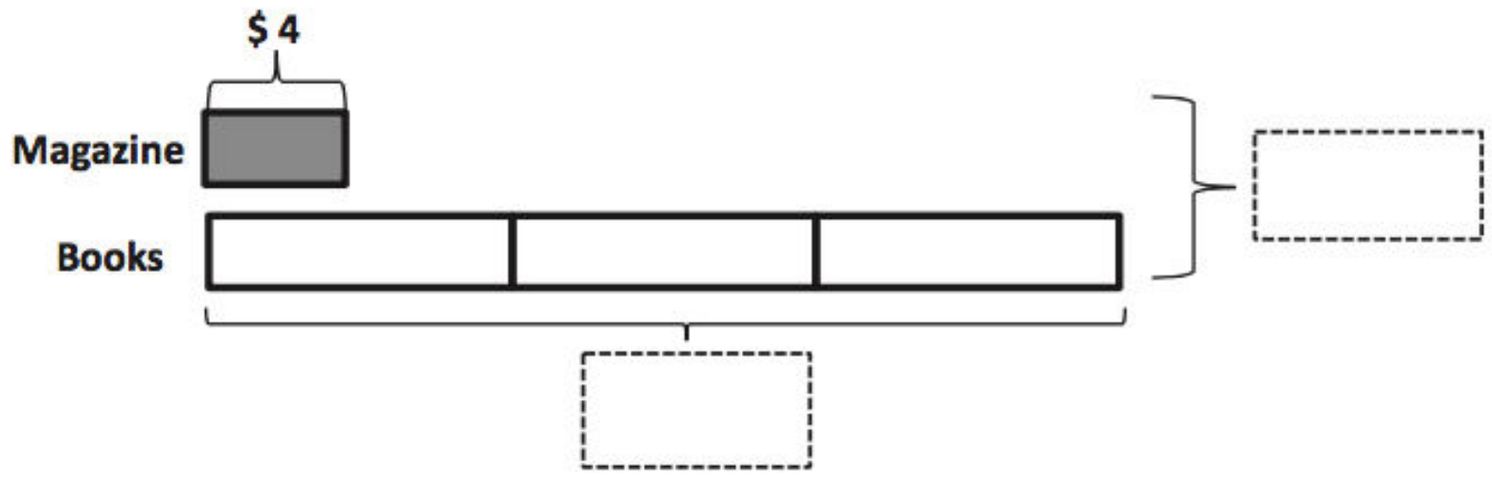
With a partner, model and solve the problem.
Make sure to reread the question to see if you have answered the question. Then, think about whether or not the answer makes sense. This is how we check the reasonableness of the answer.



Problem Set

Name _____ Date _____

1. Ted buys 3 books and a magazine at the book store. Each book costs $8. A magazine costs $4.



a. What is the total cost of the books?

Debrief

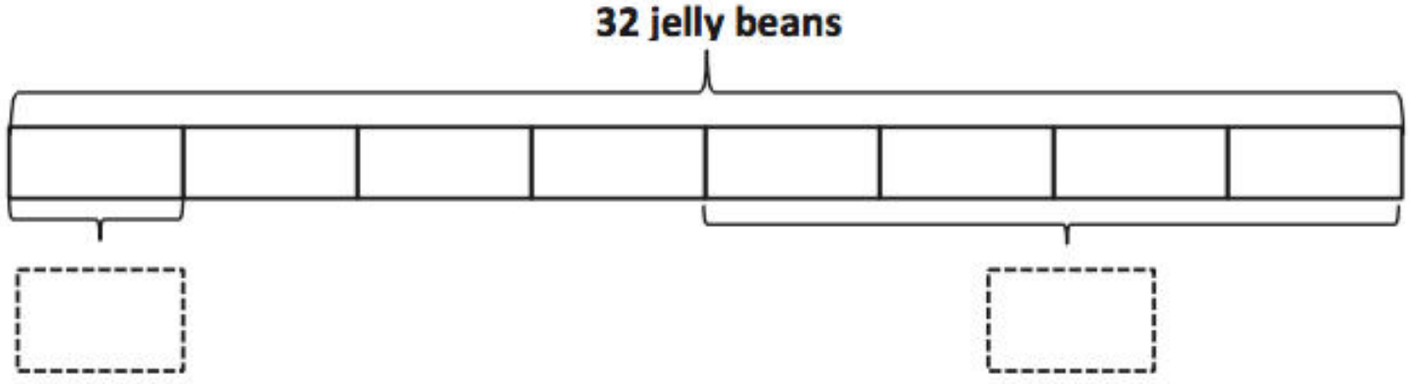
- Compare the structure of Problems 1 and 2 to the rest of the Problem Set. Problems 1 and 2 explicitly ask two questions to scaffold the two-step word problems. Problems 3–5 still require two steps but only ask one question.

- Compare Problems 3 and 5. What do the unknowns represent? How are these problems similar? How are they different?
- Have students share their models. In Problems 3 and 5, how did you show the boxes of broken cups and the bags of pears sold?
- How did you check the reasonableness of your answers to each problem?

Exit Ticket

Name _____ Date _____

1. Thirty-two jelly beans are shared by 8 students.



a. How many jelly beans will each student get?

b. How many jelly beans will 4 students get?