

Eureka Math

1st Grade Module 4 Lesson 22

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Directions for customizing presentations are available on the next slide.



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- Within Google Slides (not Chrome), choose FILE.
- Choose MAKE A COPY and rename your presentation.
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- It is now editable & housed in MY DRIVE.



Icons



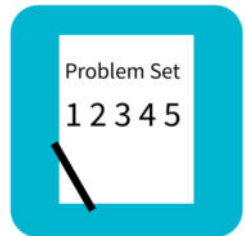
Read, Draw, Write



Learning Target



Personal White Board



Problem Set



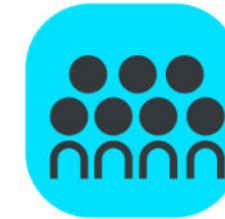
Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



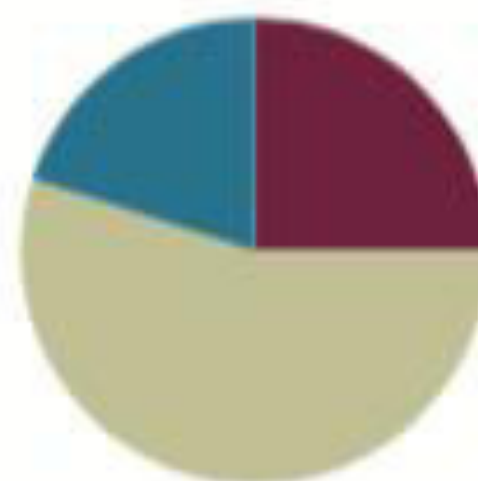
Small Group Time

Lesson 22

Objective: Write word problems of varied types.

Suggested Lesson Structure

■ Fluency Practice	(15 minutes)
■ Concept Development	(33 minutes)
■ Student Debrief	(12 minutes)
Total Time	(60 minutes)



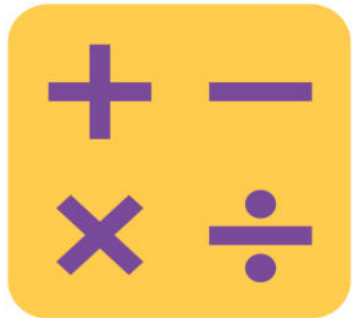
Materials Needed

- Problem Set



I can write word problems of varied types.

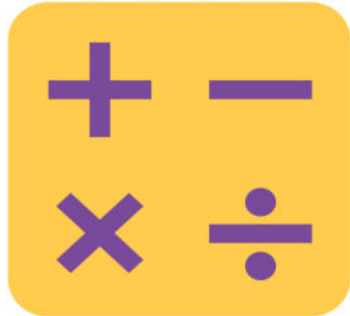
Race and Roll Addition (3 min.)



All students start at 0. Partners take turns rolling a die, saying a number sentence, and adding the number rolled to the total. For example, Partner A rolls 6 and says, “ $0 + 6 = 6$.” Then, Partner B rolls 3 and says, “ $6 + 3 = 9$.” They continue rapidly rolling and saying number sentences until they get to 20 without going over.

Partners stand when they reach 20. For example, if they are at 18 and roll 5, they would take turns rolling until one of them rolls a 2 or a 1 and a 1. Then, they would both stand.

Sprint: Related Addition and Subtraction (10 min.)



A STORY OF UNITS				Lesson 22 Sprint 1•4	
A		Number Correct:			
Name _____		Date _____			
*Write the missing number. Pay attention to the + and - signs.					
1	$2 + 2 = \square$		16	$2 + \square = 8$	
2	$2 + \square = 4$		17	$6 + \square = 8$	
3	$4 - 2 = \square$		18	$8 - 6 = \square$	
4	$3 + 3 = \square$		19	$8 - 2 = \square$	
5	$3 + \square = 6$		20	$9 + 2 = \square$	
6	$6 - 3 = \square$		21	$9 + \square = 11$	
7	$4 + \square = 7$		22	$11 - 9 = \square$	
8	$3 + \square = 7$		23	$9 + \square = 15$	
9	$7 - 3 = \square$		24	$15 - 9 = \square$	
10	$7 - 4 = \square$		25	$8 + \square = 15$	
11	$5 + 4 = \square$		26	$15 - \square = 8$	
12	$4 + \square = 9$		27	$8 + \square = 17$	
13	$9 - 4 = \square$		28	$17 - \square = 8$	
14	$9 - 5 = \square$		29	$27 - \square = 8$	
15	$9 - \square = 4$		30	$37 - \square = 8$	

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Lesson 22: Write word problems of varied types. **291**

A STORY OF UNITS				Lesson 22 Sprint 1•4	
B		Number Correct:			
Name _____		Date _____			
*Write the missing number. Pay attention to the + and - signs.					
1	$3 + 3 = \square$		16	$2 + \square = 9$	
2	$3 + \square = 6$		17	$7 + \square = 9$	
3	$6 - 3 = \square$		18	$9 - 7 = \square$	
4	$4 + 4 = \square$		19	$9 - 2 = \square$	
5	$4 + \square = 8$		20	$9 + 5 = \square$	
6	$8 - 4 = \square$		21	$9 + \square = 14$	
7	$4 + \square = 9$		22	$14 - 9 = \square$	
8	$5 + \square = 9$		23	$9 + \square = 16$	
9	$9 - 5 = \square$		24	$16 - 9 = \square$	
10	$9 - 4 = \square$		25	$8 + \square = 16$	
11	$3 + 4 = \square$		26	$16 - \square = 8$	
12	$4 + \square = 7$		27	$8 + \square = 16$	
13	$7 - 4 = \square$		28	$16 - \square = 8$	
14	$7 - 3 = \square$		29	$26 - \square = 8$	
15	$7 - \square = 3$		30	$36 - \square = 8$	

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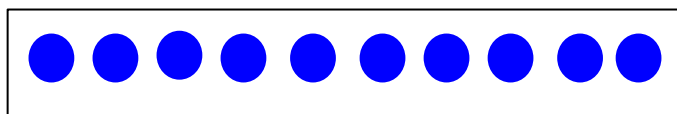
Lesson 22: Write word problems of varied types. **292**



Longer/Shorter

10 20

This rectangle can fit a row of 10 dots.



I'm going to start to draw a rectangle that can fit a row of 20 dots of the same size. Tell me when to stop.

Why did you say "stop" there?



Longer/Shorter

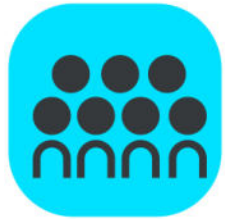
Repeat this process for the following sequence of numbers: 10 and 5, 4 and 4, 4 and 8, 4 and 2, 8 and 10,

10 and 9. Only draw the actual dots for the first example. With each example, help students talk about how the first number compares, or relates, to the second number using language such as a little longer, a little shorter, much longer, double, etc.

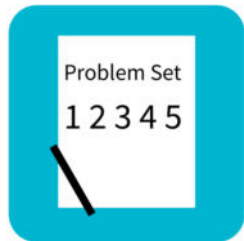
Application Problem

The logo consists of the letters 'RDW' in white, bold, sans-serif font, centered within a green rounded square.

There is no Application Problem for today's lesson.

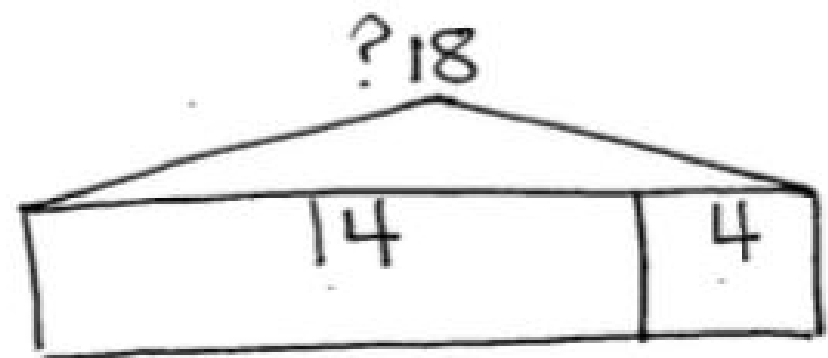


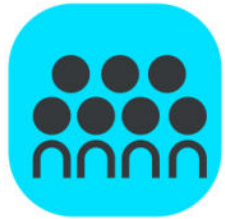
Concept Development



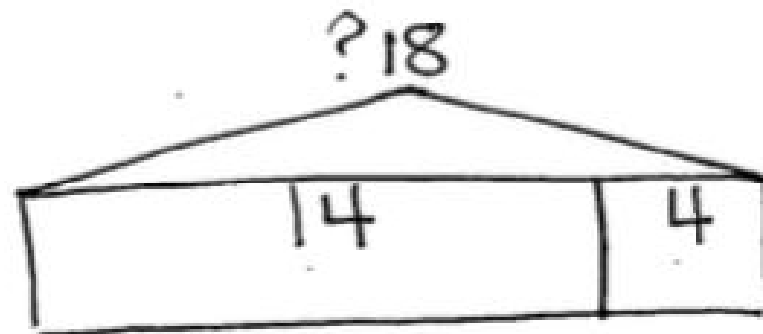
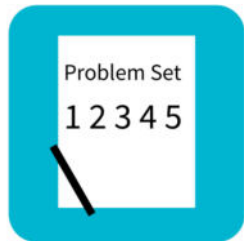
I found this drawing on a piece of paper on the floor. It went with someone's word problem from this week. Does anyone know which one it went to? Look through your Problem Sets with a partner, and see if you can figure it out.

Talk about how you know.

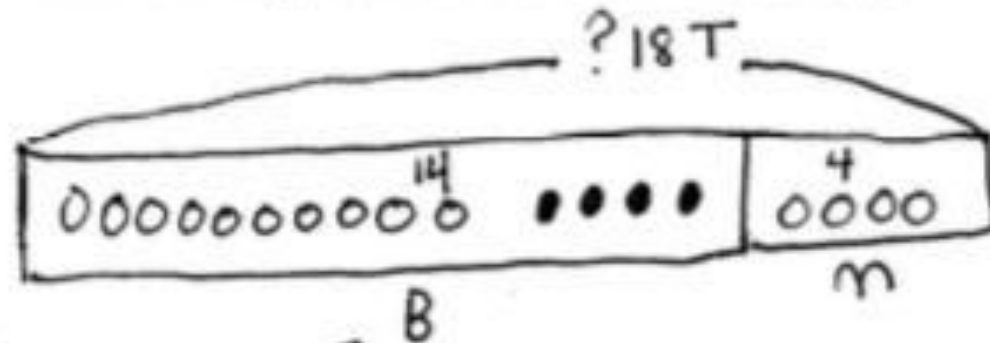




Concept Development

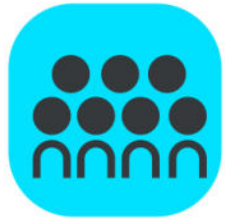


4. Shanika built a block tower using 14 blocks. Then, she added 4 more blocks to the tower. How many blocks are there in the tower now?



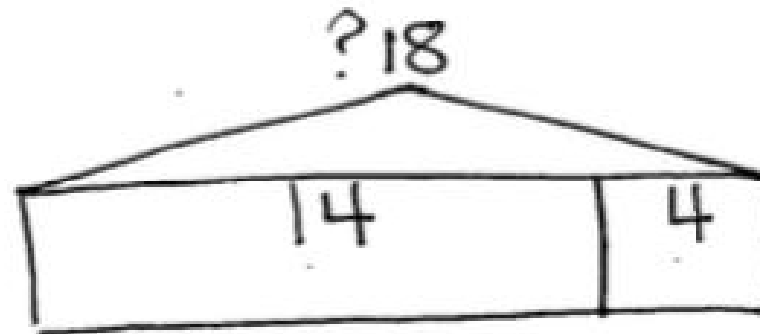
$$14 + 4 = \boxed{18}$$

The tower is made of 18 blocks.

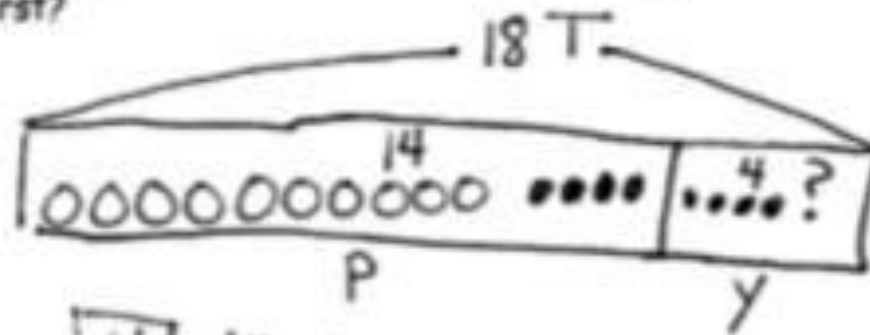


Concept Development

Problem Set
1 2 3 4 5

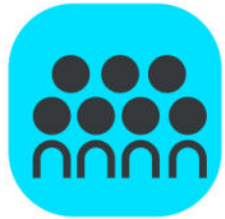


6. Some yellow beads were on Tamra's bracelet. After she put 14 purple beads on the bracelet, there were 18 beads. How many yellow beads did Tamra's bracelet have at first?

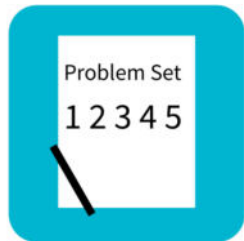


$$\boxed{4} + 14 = 18$$

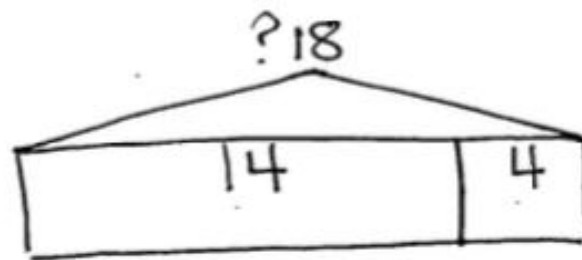
Tamra's bracelet had 4 yellow beads.



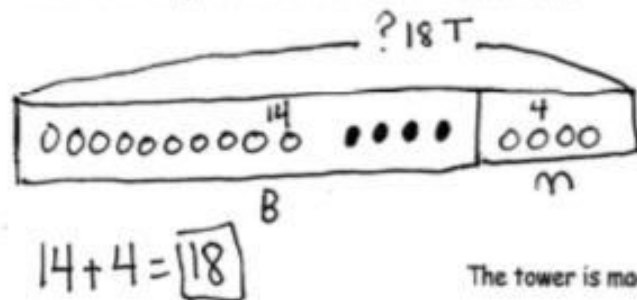
Concept Development



They both sound like they could match this tape diagram.



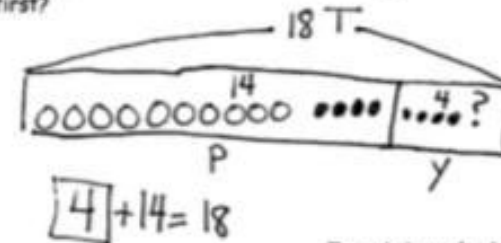
4. Shanika built a block tower using 14 blocks. Then, she added 4 more blocks to the tower. How many blocks are there in the tower now?



The tower is made of 18 blocks.

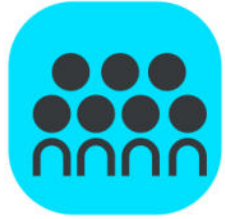
Lesson 21 Problem 4

6. Some yellow beads were on Tamra's bracelet. After she put 14 purple beads on the bracelet, there were 18 beads. How many yellow beads did Tamra's bracelet have at first?

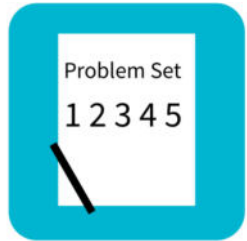


Tamra's bracelet had 4 yellow beads.

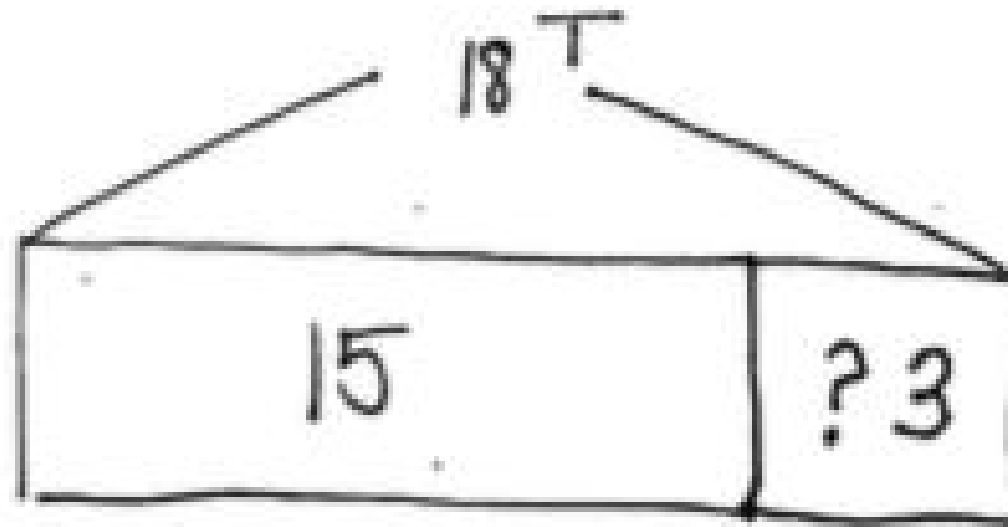
Lesson 20 Problem 6

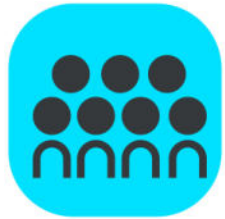


Concept Development

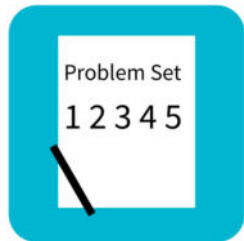


This is a tape diagram for a problem from yesterday's lesson. Which problem does this match?

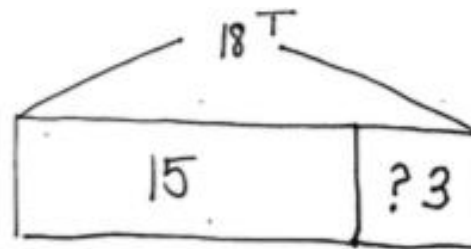




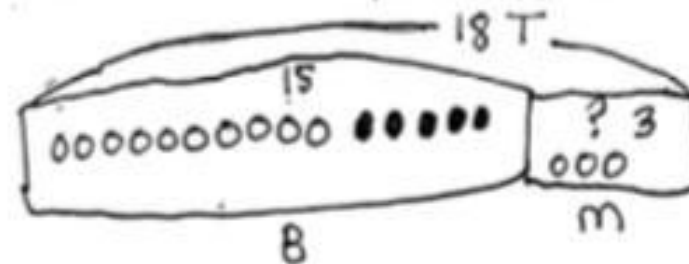
Concept Development



This is a tape diagram for a problem from yesterday's lesson. Which problem does this match?

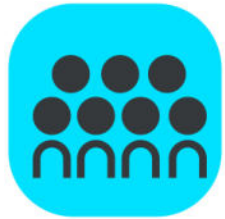


5. Nikil's tower is 15 blocks tall. He added some more blocks to his tower. His tower is now 18 blocks tall. How many blocks did Nikil add?

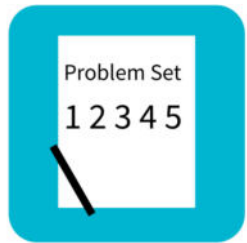


$$15 + \boxed{3} = 18$$

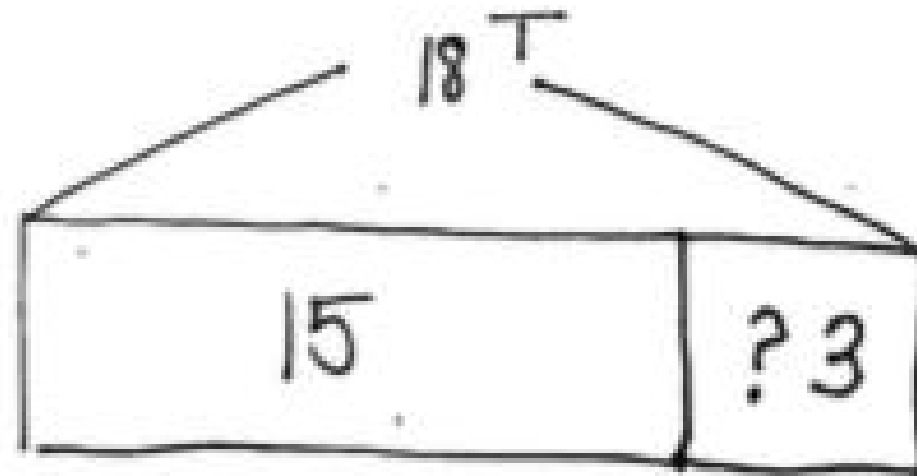
Nikil added 3 blocks.

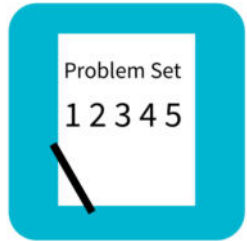
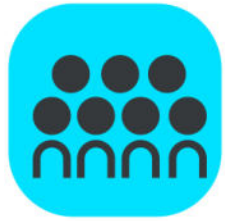


Concept Development



With your partner, try to come up with a different story that could go with this tape diagram. You can use your tape diagram template as you discuss your idea.



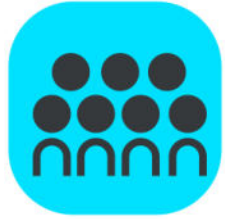


Concept Development

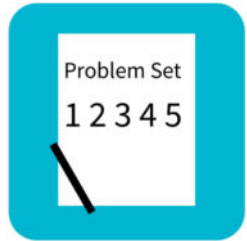
Listen to students as they generate their story ideas, and choose three student math stories to use as samples for the class. Present the stories in the following order:

- A story that parallels the examples using a different topic. (An add to with a change unknown problem type, where the 3 is the unknown number, e.g., $15 + ? = 18$.)
- An add to with a result unknown problem type, for example, $15 + 3 = ?$
- A different add to or take from with a change unknown problem or an add to with the start unknown problem, for example, $3 + ? = 18$, $18 - ? = 15$, or $? + 15 = 18$.

As the students share the problem with the class, redraw the tape diagram, label appropriately for the given story, and write the accompanying number sentences and statement.



Concept Development

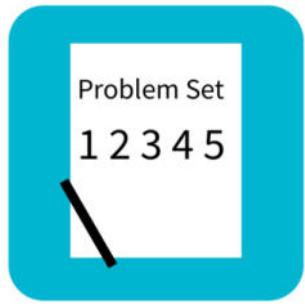


What was similar in all of these problems?

What was different in each story problem?

How could knowing the answer to one story problem help you with a different story problem?



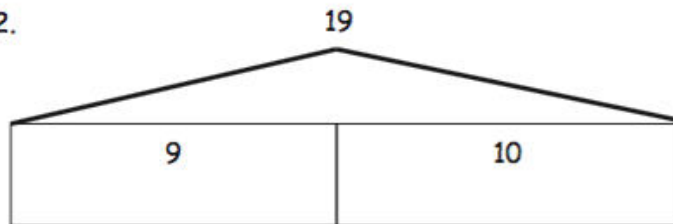


Problem Set

A STORY OF UNITS

Lesson 22 Problem Set 1•4

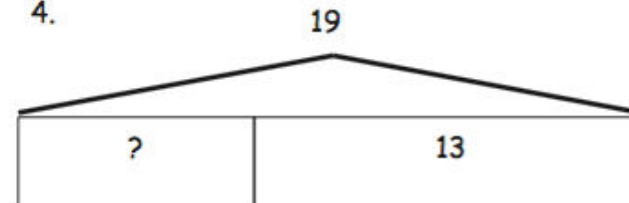
2.



A STORY OF UNITS

Lesson 22 Problem Set 1•4

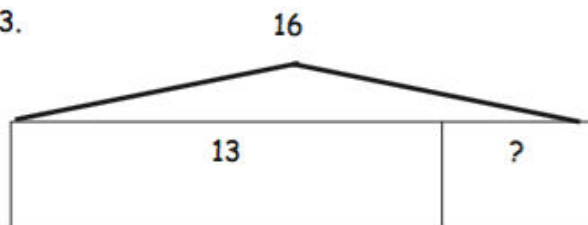
4.



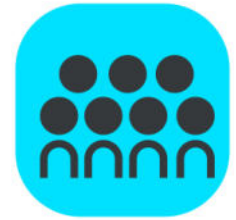
A STORY OF UNITS

Lesson 22 Problem Set 1•4

3.



Debrief



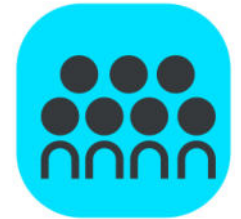
Look at Problem A. What story problem did you write?

Share with the class.

Pose to the rest of the class:

- What is the unknown number in the question?
- What number sentence would help you solve the question?
- How did you decide on your labels for your tape diagrams?

Debrief

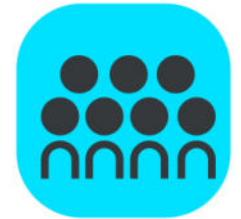


Which problems were the easiest for you to think of ideas for?

Which were harder?

Why?

Debrief



Look at your Application Problems from Lessons 13–18 and your Problem Sets from Lessons 19–21.
What do you notice about your work?

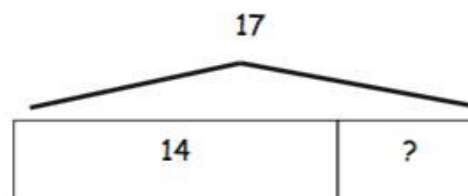
What part of your word problem work has been improving?

Exit Ticket



Name _____ Date _____

Circle the 2 story problems that match the tape diagram.



- a. There are 14 ants on the picnic blanket. Then, some more ants came over. Now, there are 17 ants on the picnic blanket. How many ants came over?
- b. 14 children are on the playground from one class. Then, 17 children from another class came to the playground. How many children are on the playground now?
- c. 17 grapes were on the plate. Willie ate 14 grapes. How many grapes are on the plate now?