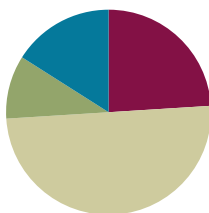


Lesson 28

Objective: Act out *result unknown* story problems without equations.

Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(5 minutes)
■ Concept Development	(25 minutes)
■ Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- How Many? **K.CC.4b** (4 minutes)
- Wet Dog Counting **K.CC.4a** (4 minutes)
- Rekenrek Counting **K.CC.2** (4 minutes)

How Many? (4 minutes)

Materials: (S) Bags of red and white beans, construction paper work mat, die

1. Partner A rolls a die, and places that many beans on his mat.
2. Partner B rolls a die, and places that many beans on her mat.
3. Partner A counts how many beans on both of their mats.
4. Partner B counts to verify or disagree, and then recounts with Partner A, if necessary.

Circulate to observe and provide support.

Wet Dog Counting (4 minutes)

- T: Pick a number between 1 and 10. (Call on a student.)
- S: 4.
- T: Wet dog for 4. Ready?
- S: 1, 2, 3, 4 (while shaking the right arm); 1, 2, 3, 4 (while shaking the left arm); 1, 2, 3, 4 (while shaking the right leg); 1, 2, 3, 4 (while shaking the left leg).

Select another student to choose another number, and repeat.

Rekenrek Counting (4 minutes)

Conduct the activity as outlined in Lesson 4, but introduce a layer of complexity by having students whisper the numbers. Here is a suggested way to introduce the whisper/talk counting activity.

T: Let's whisper/talk. When I do this (demonstrate whisper signal as finger to lip), whisper how many beads you see, but if I do this (extend hand toward students), say how many out loud.

Having students *think* the numbers forces them to hold the counting sequence in their mind, relying on an internal number line until they can say the numbers aloud again. Here is a suggested way to introduce the think/talk counting activity.

T: Let's think/talk. When I do this (touch temple), say the number in your mind; but if I do this (extend hand toward students), say how many out loud.

Application Problem (5 minutes)

Draw a bracelet with 10 beads. Make sure that your bracelet is closed so the beads don't fall off! Show your bracelet to a friend, and have her count your beads. Did you both count them the same way? Are there any smaller numbers inside your bracelet?

Note: Requiring the students to articulate their counts of 10 and to observe numbers within their count prepares them for more precise discussions in today's lesson.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Help English language learners participate and discuss strategies for counting their beads by providing them with sentence starters such as, "I counted my beads by..." Giving students a place to start reduces their anxiety about using the language.

Concept Development (25 minutes)

Materials: (T) 10 sheets of construction paper, each labeled with a large number (1–10) placed in a row on the floor in the front of the room to make a number path, set of number cards (1–10) (S) Bag of 20 loose linking cubes (10 red, 10 white)

Note: In preparation for the opening activity, give ten students one of the number cards.

T: We are going to have a math play! First, I need some actors. If I have given you a card, please come up to stand in that place on the **number path**.

S: (Find their places.)

T: (Check for accuracy, and collect cards.) Now, actors, listen to my story, and do what I say. I will need help from the audience, too. (A sample story is outlined here; it may be modified to reflect other activities currently taking place in class.)

T: Once upon a time, there were some lovely children on a path in the village. How many children were on the path? (Wait for audience to count.)

S: There were 10.

T: There are 10 children and 10 squares on the number path. The children were walking to a birthday party. (Have students march in place.)

- T: On the way, 5 of them got tired and had to sit down. (Indicate that the first 5 students should sit on their numbers.) How many children are on the path?
- S: There are 5 sitting and 5 standing. → There are 10 on the path.
- T: After they rested for a little while, they got up, and the group continued on its way. (Have children march in place again.) Suddenly, the last 2 children had to stop to tie their shoes. (Have two children pretend to tie their shoes.) How many children are tying their shoes?
- S: 2.
- T: How many are still walking?
- S: 8.
- T: How many children in all?
- S: 10.

Repeat various scenarios to reflect a variety of number combinations within 10.

- T: Finally, the children got to the party and had a wonderful time eating cake!
- S: (Pantomime eating cake.)
- T: After they played some games, the first child had to go home. (Have the child standing on the number 10 return to her seat.) Look at our number path now! How many squares are empty?
- S: 1.
- T: How many are still full?
- S: 9.
- T: How many squares are on our path?
- S: There are still 10 squares.
- T: Soon, the next child had to go home. (Have the student standing on the number 9 go back to her seat.) How many children left the party?
- S: 2.
- T: How many are still here?
- S: 8.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Challenge students who are performing above grade level by asking questions that move their comprehension to higher levels such as, “What would happen if two more children had to tie their shoes?” and “How many children are still walking?”

Repeat until all children are in their seats. If time permits, redistribute the cards, and allow another group of students to participate.

MP.2

- T: Now, let’s tell some stories with our linking cubes. Take out your linking cubes, and put a row of 4 red cubes on your desk. Put another row exactly like it underneath. How many cubes?
- S: There are 8 cubes.
- T: Listen to my story: “There were 8 beautiful roses planted in the garden. One day, there was a terrible snowstorm that covered 4 of the roses with snow.” What can we do to show this with our cubes?
- S: Let’s trade 4 of the red cubes for white ones! → We will have a row of red flowers and a row of white snowy ones.

- T: Good idea! Now, what do you see?
- S: There are 4 red and 4 white. → There are 8.
- T: (If time permits, continue other stories with groups of 7 and 9, showing various decompositions. As students grow more comfortable with the exercise, allow them to contribute stories as well.)

Suggested story starters: In a bike shop, there were 6 blue bikes and 3 red bikes, etc. We are looking for baseballs. In the closet, we found 5 baseballs, and then in the garage we found 4 more, etc.

Problem Set (5 minutes)

Students should do their personal best to complete the Problem Set within the allotted time.

Distribute the Problem Set to students. Read each of the stories. As you read, guide the students to color the pictures according to the story.

Student Debrief (8 minutes)

Lesson Objective: Act out *result unknown* story problems without equations.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.


- How did the **number path** help us act out our story?
- How many red and purple flowers did it take to make 6 flowers? Talk to your neighbor: Could we color the flowers a different way and still have 6 flowers? (Discuss the donuts, shirts, and marbles the same way.)

NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 28 Problem Set K•1

Name _____ Date _____

Listen to my stories. Color the pictures to show what is happening. Write how many in the box.


Bobby picked 4 red flowers. Then he picked 2 purple flowers. How many flowers did Bobby pick?




6

Janet went to the donut store. She bought 6 chocolate donuts and 3 strawberry donuts. How many donuts did she buy?

9

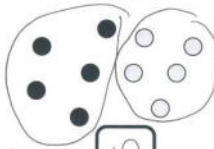


Some children were sitting in a circle. 4 of them were wearing green shirts. The rest were wearing yellow shirts. How many children were in the circle?



7


Jerry spilled his bag of marbles. Circle the group of grey marbles. Circle the group of black marbles. How many marbles spilled?



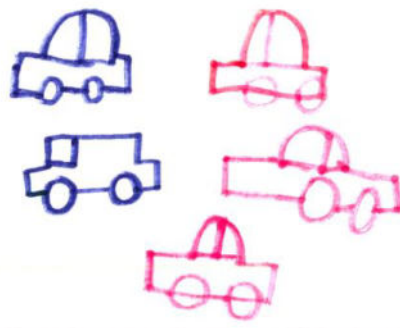
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COMMON CORE Lesson 28: Act out result unknown story problems without equations. 4/15/14 engage^{ny} 1.F.5

Make up a story with the bears. Color the bears to match the story. Tell your story to a friend.



Make up a story. Draw a picture to go with your story. Tell your story to a friend.



- Look at the 9 donuts Janet bought. Imagine that Janet bought 8 chocolate donuts. How many strawberry donuts could Janet buy? What if Janet bought 1 chocolate donut?
- Tell your partner about the story you created with the bears. Listen to your partner's bear story. How are they different? How are they the same?
- Tell your partner about the story you created. Listen to your partner's story. Tell your math story to your family tonight.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____

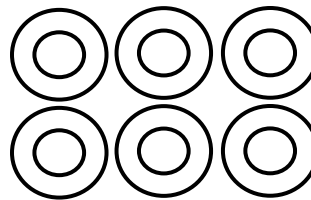
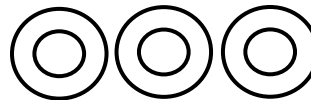
Date _____

Listen to my stories. Color the pictures to show what is happening. Write how many in the box.

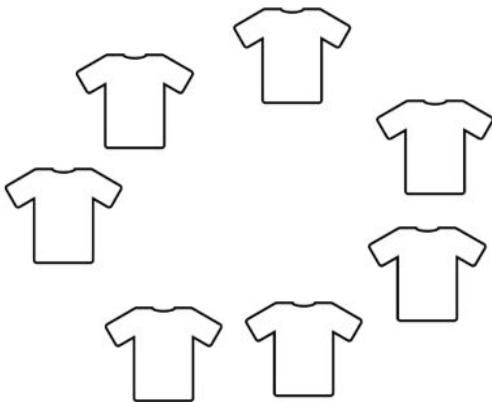
Bobby picked 4 red flowers. Then, he picked 2 purple flowers. How many flowers did Bobby pick?



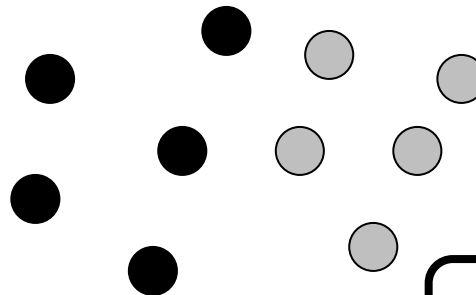
Janet went to the donut store. She bought 6 chocolate donuts and 3 strawberry donuts. How many donuts did she buy?



Some children were sitting in a circle. 4 of them were wearing green shirts. The rest were wearing yellow shirts. How many children were in the circle?



Jerry spilled his bag of marbles. Circle the group of grey marbles. Circle the group of black marbles. How many marbles were spilled?



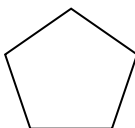
Make up a story about the bears. Color the bears to match the story.
Tell your story to a friend.



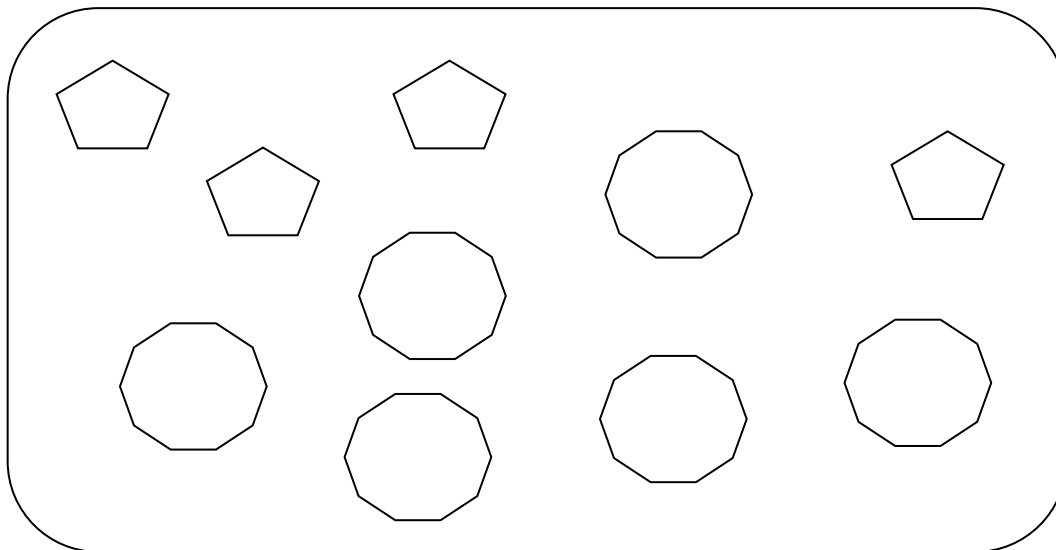
Make up a new story. Draw a picture to go with your story. Tell your story to a friend.

Name _____

Date _____

How many  ?

Write how many in the box.



Draw 6 circles. Draw 4 triangles.

How many shapes did you draw? Write how many in the box.

Name _____

Date _____

Make up a story about 10 things in your house. Draw a picture to go with your story. Be ready to share your story at school tomorrow.