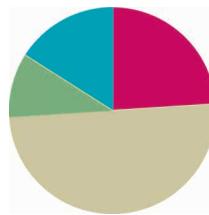


Lesson 22

Objective: Arrange and strategize to count 8 beans in circular (around a cup) and scattered configurations. Write numeral 8. Find a path through the scattered set, and compare paths with a partner.

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)

- Making 4 with Squares and Beans **K.2A** (4 minutes)
- 5-Group Peek-a-Boo **K.2D** (4 minutes)
- 1, 2, 3, Stand on 10 **K.2A** (4 minutes)

Making 4 with Squares and Beans (4 minutes)

Materials: (S) 4 beans, paper or foam squares, personal white board

Conduct activity as outlined in Lesson 16, but now have students write the expression on their personal white boards. Challenge students to list all possible combinations.

5-Group Peek-a-Boo (4 minutes)

Materials: (T) Large 5-group cards (Lesson 8 Template)

T: I'm going to show you my 5-group cards, but only for a second! Like this (hold up the card briefly, and then quickly take it out of view). Quickly count the dots, and raise your hand when you know how many. Remember to wait for the snap. (Wait for all students to raise their hands, and then give the signal.)

S: 5.

Watch closely to see which students immediately recognize the group of 5 in the top row and which must count from 1 each time. A possible sequence is 5, 6, 5, 6, 5, 6, 7, 6, 7, 8, 7, 8, Then, show numbers randomly.



Lesson 22: Arrange and strategize to count 8 beans in circular (around a cup) and scattered configurations. Write numeral 8. Find a path through the scattered set, and compare paths with a partner.

1, 2, 3, Stand on 10 (4 minutes)

- T: Now, we'll play a fast counting game. Each person says the next 3 numbers. So, if I say 1, 2, 3, what would you say? (Point to the person standing next to you.)
- S: 4, 5, 6.
- T: And the next person? (Point to the next person.)
- S: 7, 8, 9.
- T: Right. Now, here's a change. The next person only says 10. (Point.) The game is called 1, 2, 3, Stand on 10. Can you guess what you have to do if you say 10?
- S: Stand up?
- T: Yes. By the end of the game, everyone will be standing. After you say 10, the next person starts over again with 1, 2, 3. Here we go.
- S: 1, 2, 3.
- S: 4, 5, 6.
- S: 7, 8, 9.
- S: 10. (Stand up.)
- S: 1, 2, 3.

Continue playing until all students are standing.

Application Problem (5 minutes)

Draw 2 stacks of 4 blocks each. Count your blocks. How many do you have? Compare your drawing to a friend's.

Note: Counting 8 within an array prepares students for counting eights in different configurations in today's lesson.

Concept Development (25 minutes)

Materials: (T) Cardboard writing frame on board (S) Bag of 10 beans or other small counters (objects should vary from student to student), work mat, plastic cup, personal white board with numeral formation practice sheet 8 (Lesson 22 Practice Sheet)

- T: Take out 5 of your counters, and then count out 3 more. How many are left in your bag?
- S: 2.
- T: Put your counters in your plastic cup. Shake them up 8 times, and pour them into the circle on your work mat. (Demonstrate.) Count your objects. How many?
- S: 8.
- T: Look at your friend's work mat. Does his group of 8 look just like yours?
- S: (Varied responses.)


**NOTES ON
MULTIPLE MEANS
OF REPRESENTATION:**

For students with special needs, consider breaking down the activity so that students are asked to draw 1 stack of 4 blocks. Then, ask students to repeat the activity by drawing the second stack of 4 blocks only after they have been successful with their first drawing.

- T: Use your finger to draw an imaginary counting path through your counters to count them again. Show your partner how you counted. Did he count his the same way?
- S: (Varied responses. Allow time for sharing and discussion.)
- T: Put your cup upside down onto your work mat, and arrange your counters around the edge of the cup. Carefully lift up your cup. What do you see?
- S: A circle of counters!
- T: Wow, you have a lot of counters in your circle! How could we count them without getting mixed up and counting some twice? (Discuss relevant strategies.)
- T: Put 5 of your counters back in the bag. Now, put 3 counters back in the bag. How many counters did you put away? How many do you have left?
- S: 8. There are 0 left.
- T: Time for some writing! Watch how I write the number 8. Follow along with your fingers in the air. “Make an S, and do not stop. Go right back up, and an 8 you’ve got!” (Demonstrate several times. Follow by having children write on the rug or other surface for tactile practice.) You are ready to practice writing eights on your personal white boards. When you are ready, you may take out your practice sheet and use your pencils. (Distribute penmanship practice sheets to students.)

Problem Set (5 minutes)

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

Guide students to connect the dots as they count to 8. As the students circle groups of 5, be sure that they circle groups and not 5 individual shapes.

Student Debrief (8 minutes)

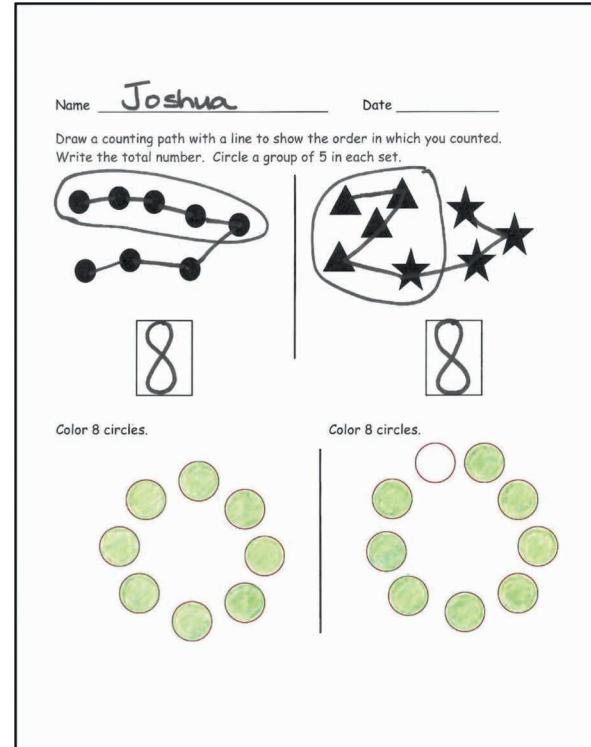
Lesson Objective: Arrange and strategize to count 8 beans in circular (around a cup) and scattered configurations. Write numeral 8. Find a path through the scatter set, and compare paths with a partner.

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.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

For English language learners, introduce the word *circle* with a visual of a circle before teaching the lesson.



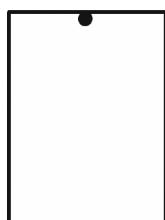
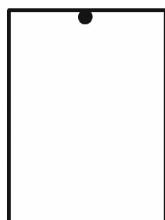
Any combination of the questions below may be used to lead the discussion.

- Talk to your partner about how you connected your shapes. Did you each draw the line that connected your shapes the same way or a different way?
- “I see that Susan circled 4 triangles and 1 star.” Show your partner which groups of 5 you circled. Even though you circled different groups of 5, are you both correct? Why?
- How many objects are not in the group of 5?
- Look at the circles you colored. Talk to your partner about the things that are the same and different about the 8 circles that you colored in each set.

Name _____

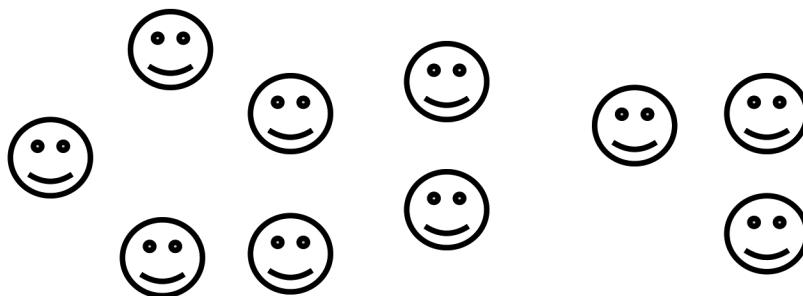
Date _____

Write 8.



Color 8 happy faces.

Circle a different group of 8 happy faces.

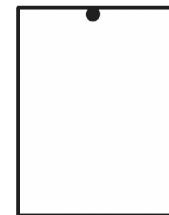
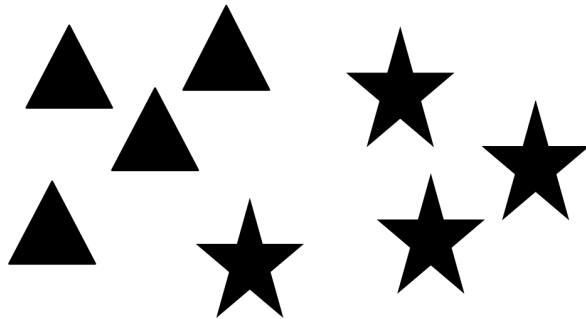
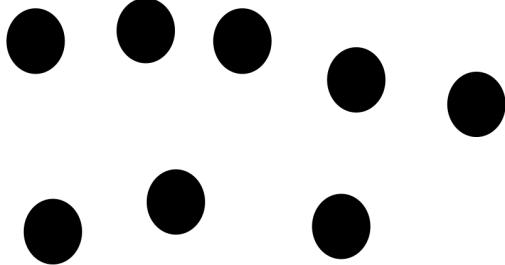


numeral formation practice sheet 8

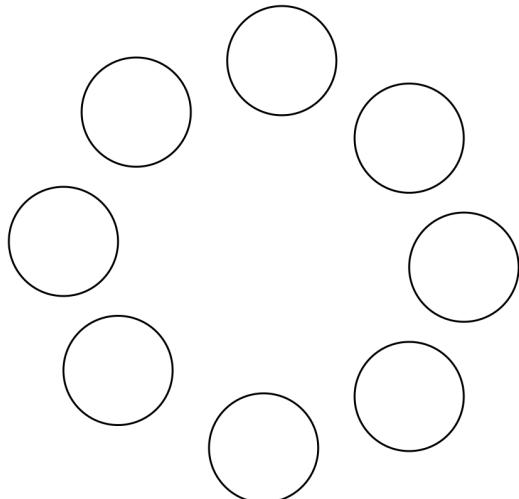
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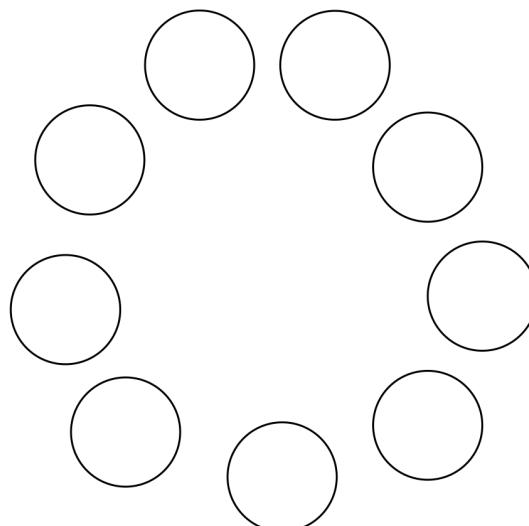
Draw a counting path with a line to show the order in which you counted.
Write the total number. Circle a group of 5 in each set.



Color 8 circles.



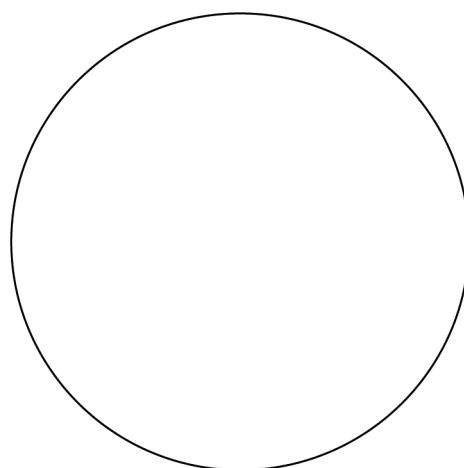
Color 8 circles.



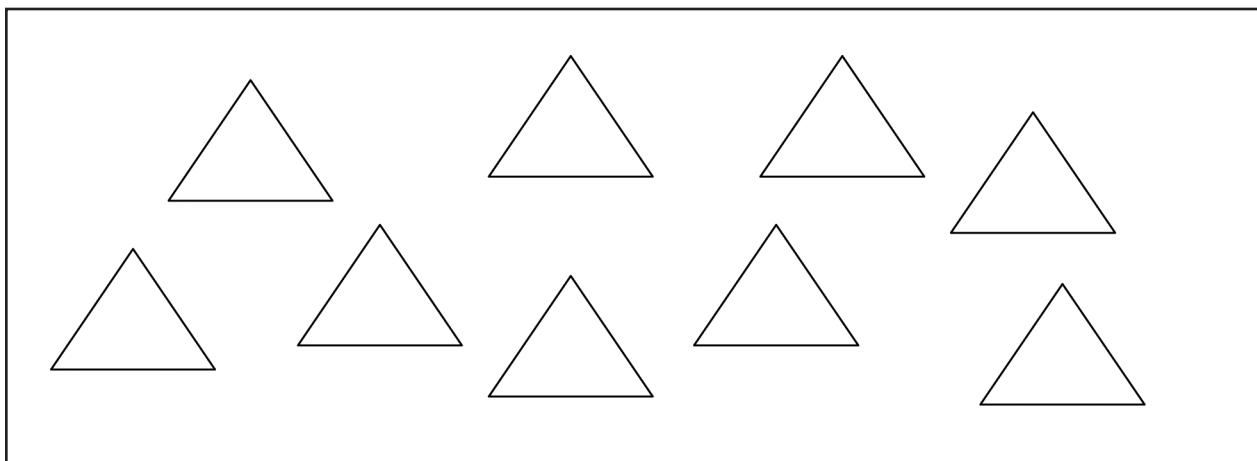
Name _____

Date _____

Draw 8 beads around the circle.

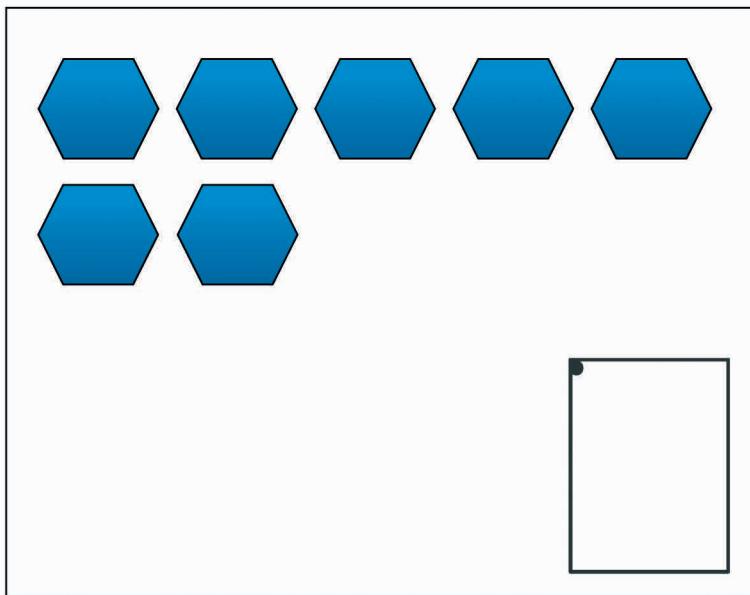
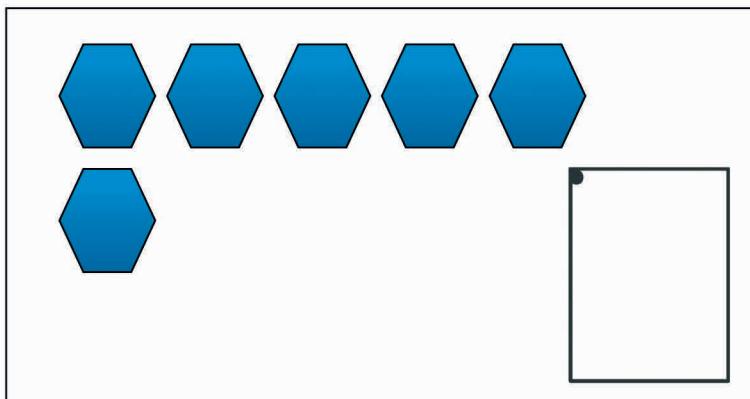
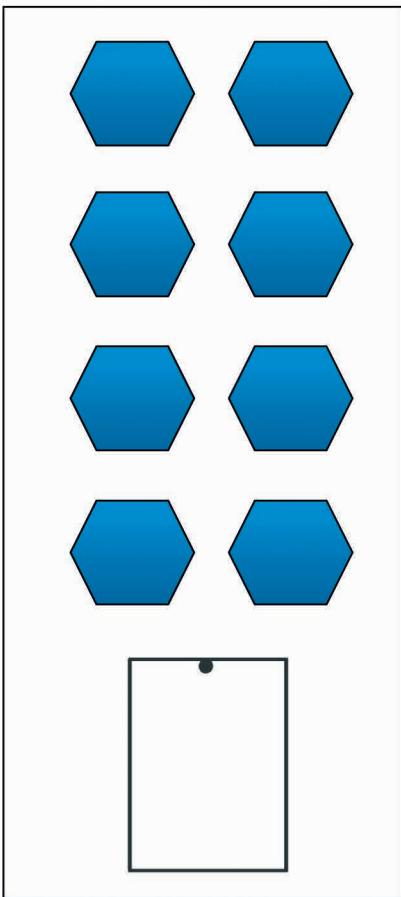
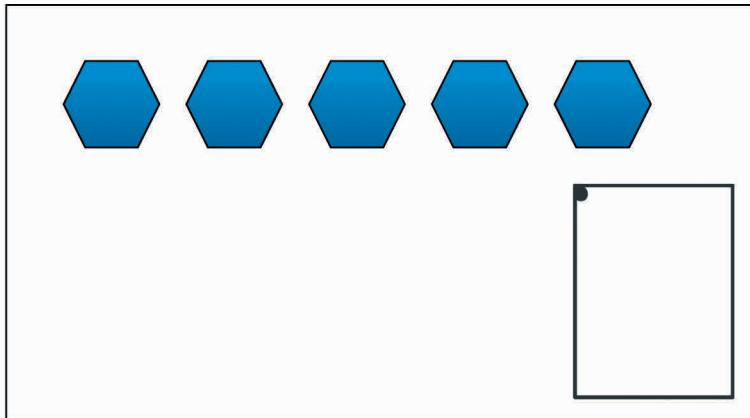
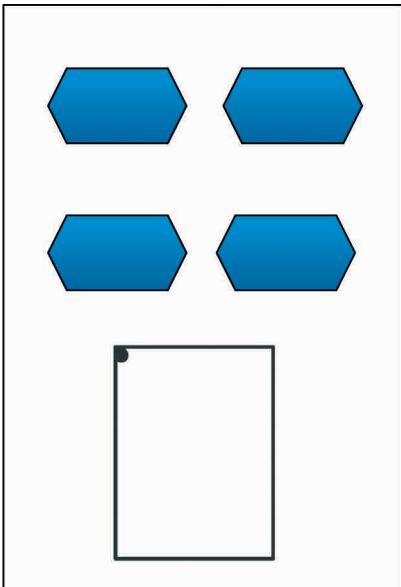


Color 8. Draw a line to show your counting path.



Lesson 22: Arrange and strategize to count 8 beans in circular (around a cup) and scattered configurations. Write numeral 8. Find a path through the scattered set, and compare paths with a partner.

Count how many. Write the number in the writing rectangle.



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Lesson 22:

Arrange and strategize to count 8 beans in circular (around a cup) and scattered configurations. Write numeral 8. Find a path through the scattered set, and compare paths with a partner.