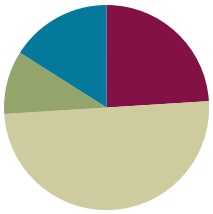
Lesson 12

Objective: Use 5-groups to represent the 5 + *n* pattern to 8.

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)

- Draw More to Make 5 **K.OA.3** (5 minutes)
- 5-Group Hands **K.CC.2** (3 minutes)
- 5-Group on the Dot Path **K.CC.2** (4 minutes)

Draw More to Make 5 (5 minutes)

Materials: (S) Make 5 (Fluency Template 1)

Note: This activity focuses students on the number 5 in order to prepare students to explore the 5 + *n* pattern.

After giving clear instructions and completing the first few problems together, allow students time to work independently. Encourage them to do as many problems as they can within a given time frame. Go over the answers, and direct students to energetically shout, "Yes!" for each correct answer.

5-Group Hands (3 minutes)

Materials: (T) Large 5-group cards (6–10) (Fluency Template 2)

Note: This activity helps to solidify students' understanding of numbers to 10 in relationship to the five, an important understanding as students deepen their work with 6–10.

T: (Show the 6 dot card.) Raise your hand when you know how many dots are on top. (Wait until all hands are raised; then, signal.) Ready?

S: 5.

T: Bottom?

S: 1.

A student demonstrates 7 as 5 on the top and 2 on the bottom.

T: We can show this 5-group on our hands. 5 on the top, 1 on the bottom, like this. (Demonstrate on hands, one above the other.)

S: (Show 5 and 1 on hands, one above the other.)

T: Push your hands out as you count on from 5, like this. 5 (extend the top hand forward), 6 (extend the bottom hand forward). Try it with me.

S: 5 (extend the top hand forward), 6 (extend the bottom hand forward).

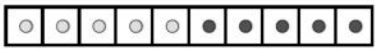
Continue to 10, steadily decreasing guidance, until students can show the 5-groups on their hands with ease.
Variation: Complete this activity without using the 5-group cards as support.

5-Group on the Dot Path (4 minutes)

Materials: (S) Dot path (Lesson 7 Fluency Template 1) inserted into personal white board

Note: This activity helps students gain flexibility in grouping 5 and understanding the 5 + *n* pattern for numbers 6–10.

Conduct the activity as outlined in Lesson 7.



Dot Path

Application Problem (5 minutes)

Materials: (S) Personal white board

5 bees were buzzing around a tasty flower. Draw the flower and the bees. 2 more bees came to join them. Draw the new hungry bees.

We had 5 bees. Now we have 2 more bees! Use your picture to show how many bees are enjoying the flower together. Talk to your partner about the picture. Can you write a number bond to go with the story?

Note: The *5 and some more* language of the story serves as an anticipatory set for today's lesson.

A NOTE ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

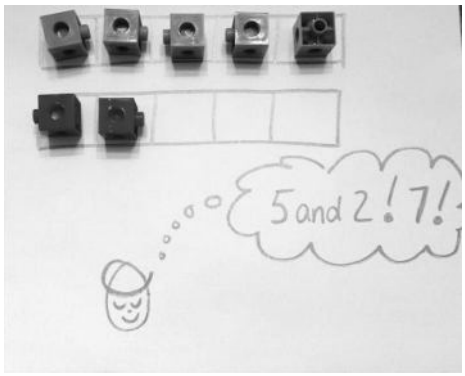
Challenge students working above grade level by asking them to write their own word problems expressing the *5 and some more* pattern. If there is more than one early finisher, have them trade problems with each other to solve.

Concept Development (25 minutes)

Materials: (S) Two 5-group mat (Template), linking cube 5-stick, 5 loose linking cubes, personal white board

T: Place your 5-group mat in front of you. Find your 5-stick. Let's take it apart and put 1 cube in each square of the top 5-group mat. What do you notice?

S: We have a cube in each square. → The top mat is full.



T: You have 5 cubes. Take another cube from your bag. Put it in the next 5-group mat. Now how many cubes do you have?

S: Now there are 5 and 1 more. → There are 6 cubes.

T: Yes! We now have 6 cubes. We could write what you did as a number bond. (Demonstrate.) We have a 5 in one of the parts and a 1 in the other. Our whole is 6. We can also write it this way (write 5 + 1 = 6): 5 and 1 equals 6. Let's take another cube and add it to our picture. What do you notice now?

S: Now we have 5 and 2. → We have 7 cubes.

T: Let's write that in a number bond, too. We have 5 in one part and 2 in the other. Our whole is 7. (Demonstrate.) We can also write it this way (write 5 + 2 = 7): 5 and 2 equals 7. Add 1 more cube. Now how many?

S: Now there are 8 cubes.

T: Let's write it in a number bond. We have 5 in one part and 3 in the other. Our whole is 8. (Demonstrate.) Here is the number sentence (write 5 + 3 = 8): 5 and 3 equals 8. Does anyone see a pattern? What if we added another cube? (Allow time for discussion, encouraging students to notice the 5 + *n* pattern.)

T: Take off all of the cubes. Let's try to do it quickly. Make 6. How did you do it?

S: 5 and 1 more!

MP.7

T: Make 7. How did you do it?

S: 5 and 2 more.

T: Please make 8. How did you do it?

S: 5 and 3 more!

T: Take a few minutes to work with your partner. Practice making all of the numbers to 8 starting with a 5. Use your fingers or linking cubes to show your ideas. Draw the number bond each time.

T: Are there other number bonds that have 5 in one of the parts? (Allow time for sharing and discussion.)

T: Who would like to share one of his number bonds with the class? I wonder how many number bonds have 5 as a part. Let's put as many as we can on the board! (Just be playful. See what students come up with!)

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Encourage English language learners' use of the language by writing out the phrases *5 and n is 6* and *5 plus n = 6*. Point to the phrases on the word wall while saying them, and then point to them again while students repeat them. English language learners become familiar with the phrases and are more likely to use them appropriately.

Problem Set (10 minutes)

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

Student Debrief (8 minutes)

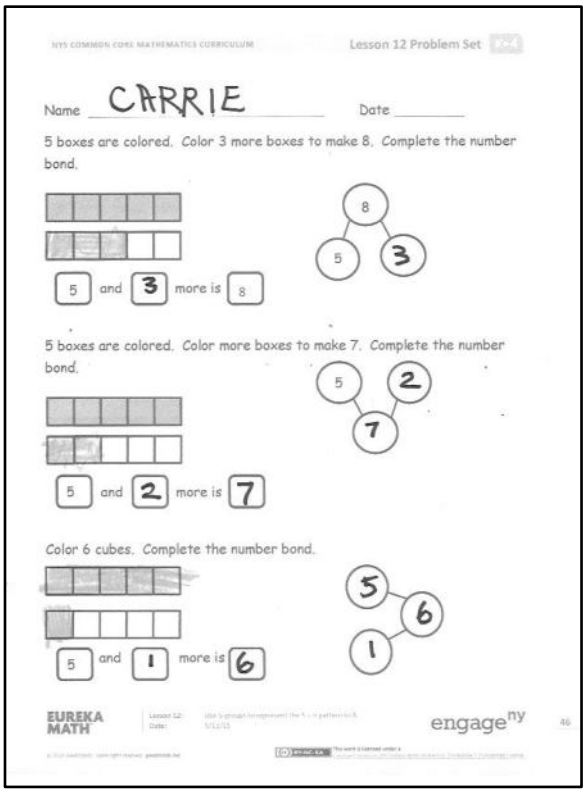
Lesson Objective: Use 5-groups to represent the 5 + *n* pattern to 8.

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 Student 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.

- Look at your Problem Set. Why do we color all the cubes in one 5-group mat before coloring the cubes in the next 5-group mat?
- Look at the first problem where you colored 8 cubes. Compare with your neighbor's. Did you color the same cubes? Did you color 5 cubes in the top row, or did you color 8 a different way? (Discuss advantages and disadvantages to the different coloring combinations.)
- When you used your 5-group mat, was it easy to know how many cubes you had?
- Did you have to count them all each time to know how many you had?
- What patterns did you see in the number bonds today?


NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 12 Problem Set K•4

Name CARRIE Date _____

5 boxes are colored. Color 3 more boxes to make 8. Complete the number bond.

8, 5, 3

5 and 3 more is 8

5 boxes are colored. Color more boxes to make 7. Complete the number bond.

5, 2, 7

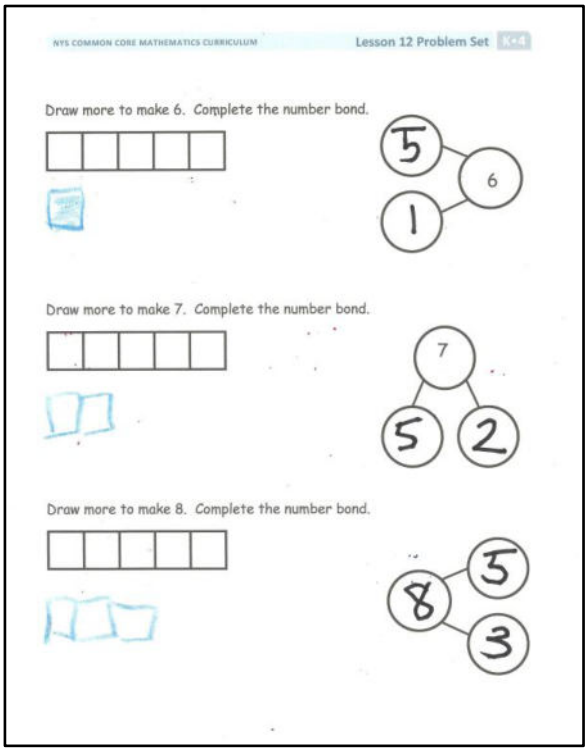
5 and 2 more is 7

Color 6 cubes. Complete the number bond.

5, 6, 1

5 and 1 more is 6

EUREKA MATH engage^ny


NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 12 Problem Set K•4

Draw more to make 6. Complete the number bond.

5, 6, 1

Draw more to make 7. Complete the number bond.

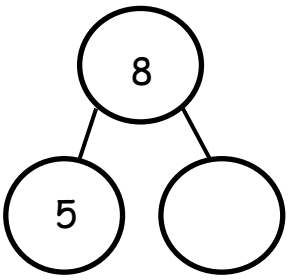
7, 5, 2

Draw more to make 8. Complete the number bond.

8, 5, 3

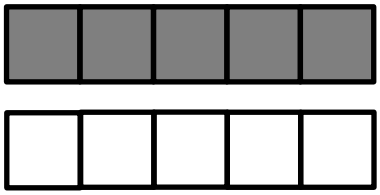
Name _____ Date _____

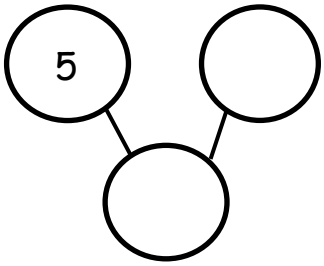
5 boxes are colored. Color 3 more boxes to make 8. Complete the number bond.



5 and ☐ more is 8

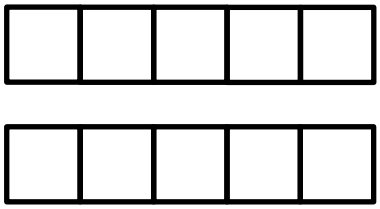
5 boxes are colored. Color more boxes to make 7. Complete the number bond.

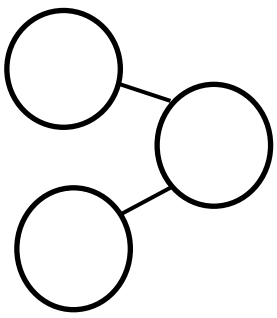




5 and ☐ more is ☐

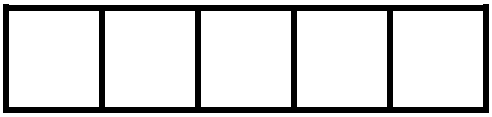
Color 6 cubes. Complete the number bond.

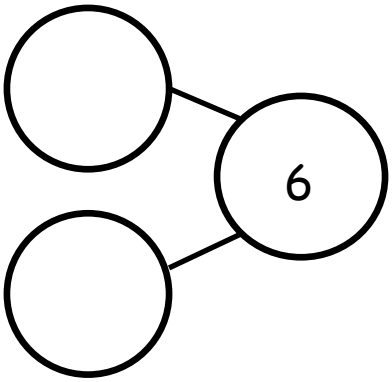




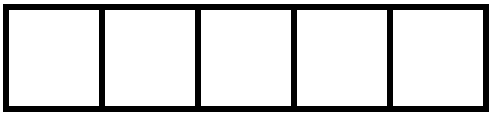
5 and ☐ more is ☐

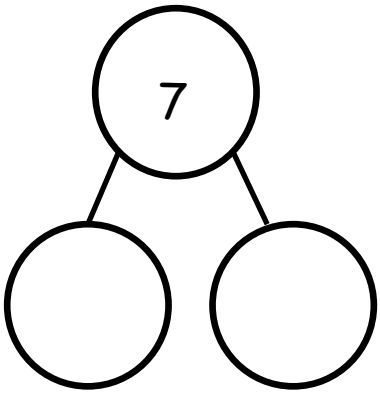
Draw more to make 6. Complete the number bond.



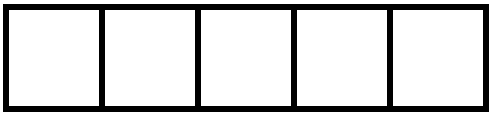


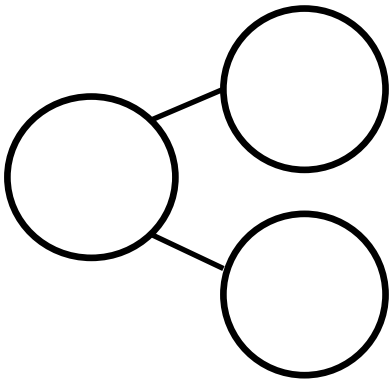
Draw more to make 7. Complete the number bond.





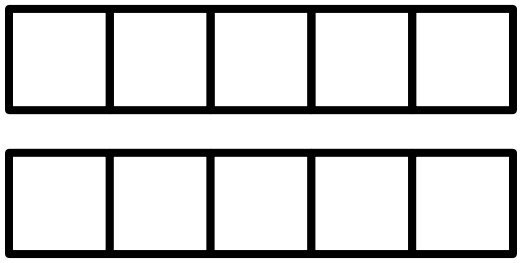
Draw more to make 8. Complete the number bond.

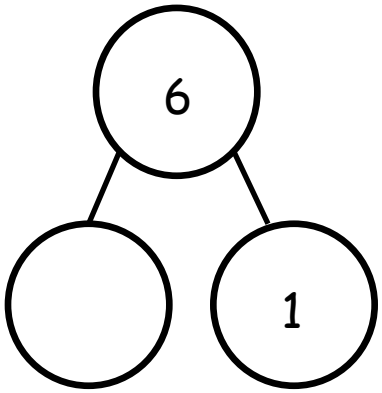




Name _____ Date _____

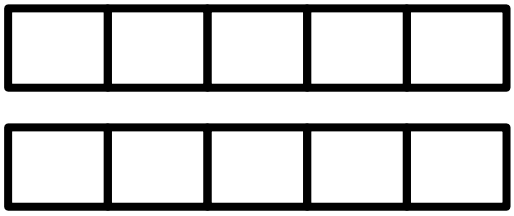
Fill in the number bond to match the squares.

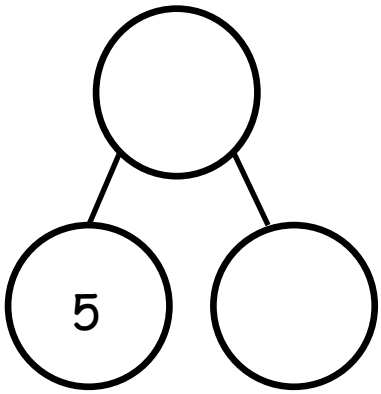




6 is ☐ and 1 more

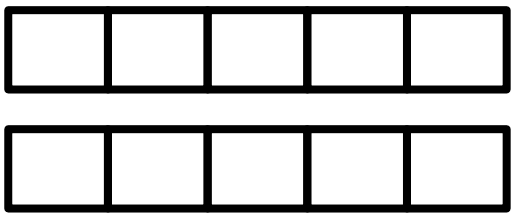
Color 5 squares blue in the first row.
Color 2 squares red in the second row.

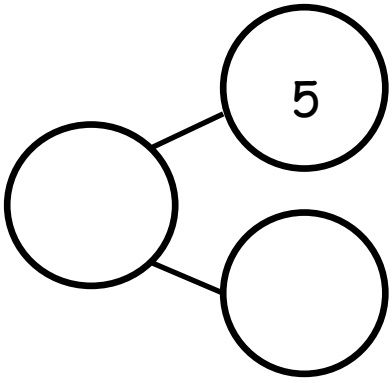




☐ is 5 and ☐ more

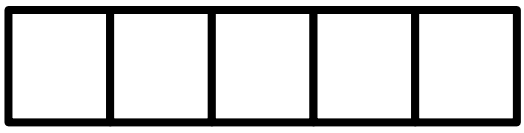
Color 8 squares. Complete the number bond and sentence.

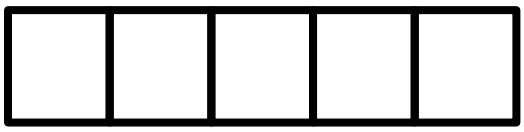


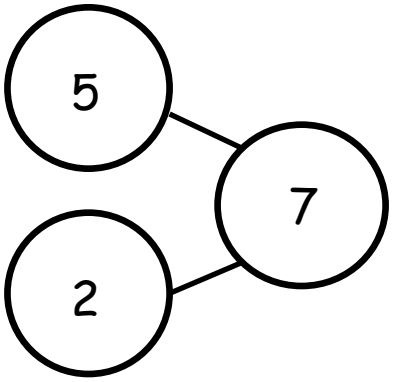


☐ is 5 and ☐ more

Color the sticks to match the number bond.

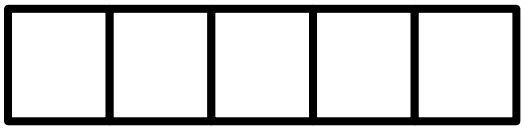


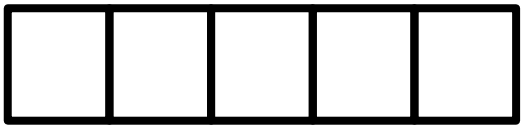


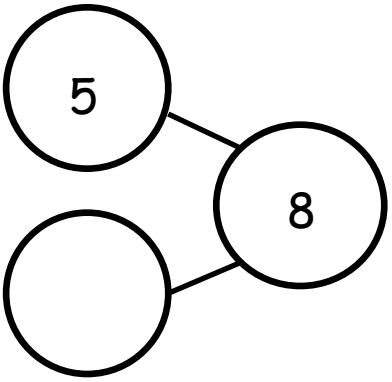


7 is ☐ and ☐ more

Color the sticks to match the number bond.

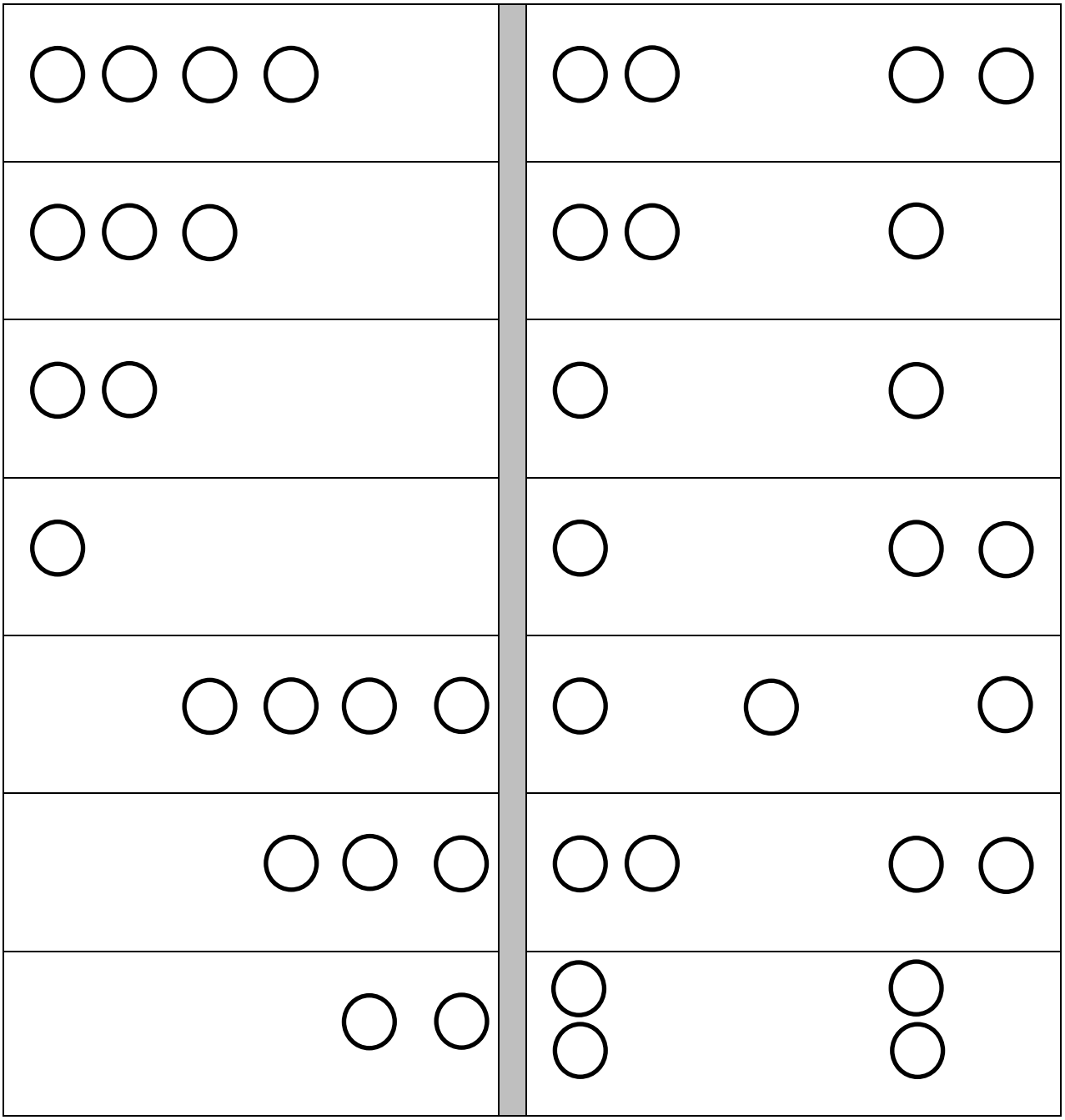






☐ is ☐ and ☐ more

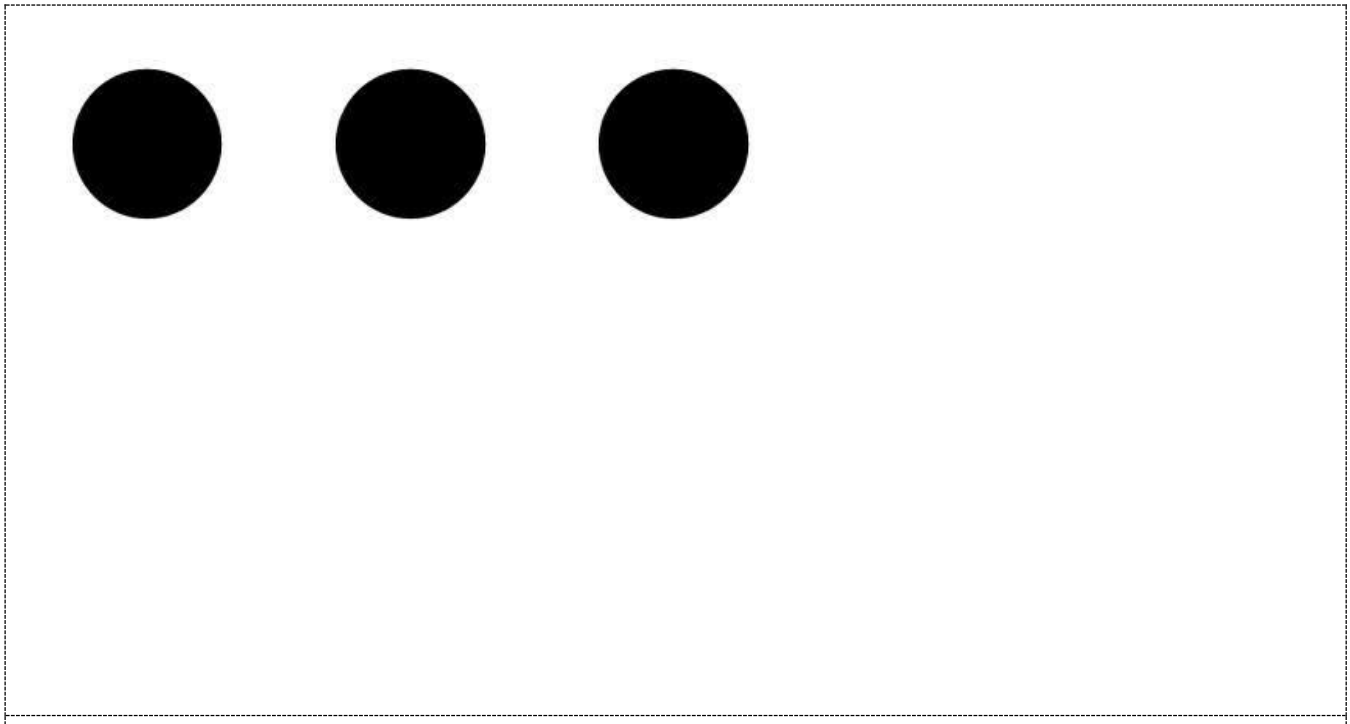
Draw more to make 5.

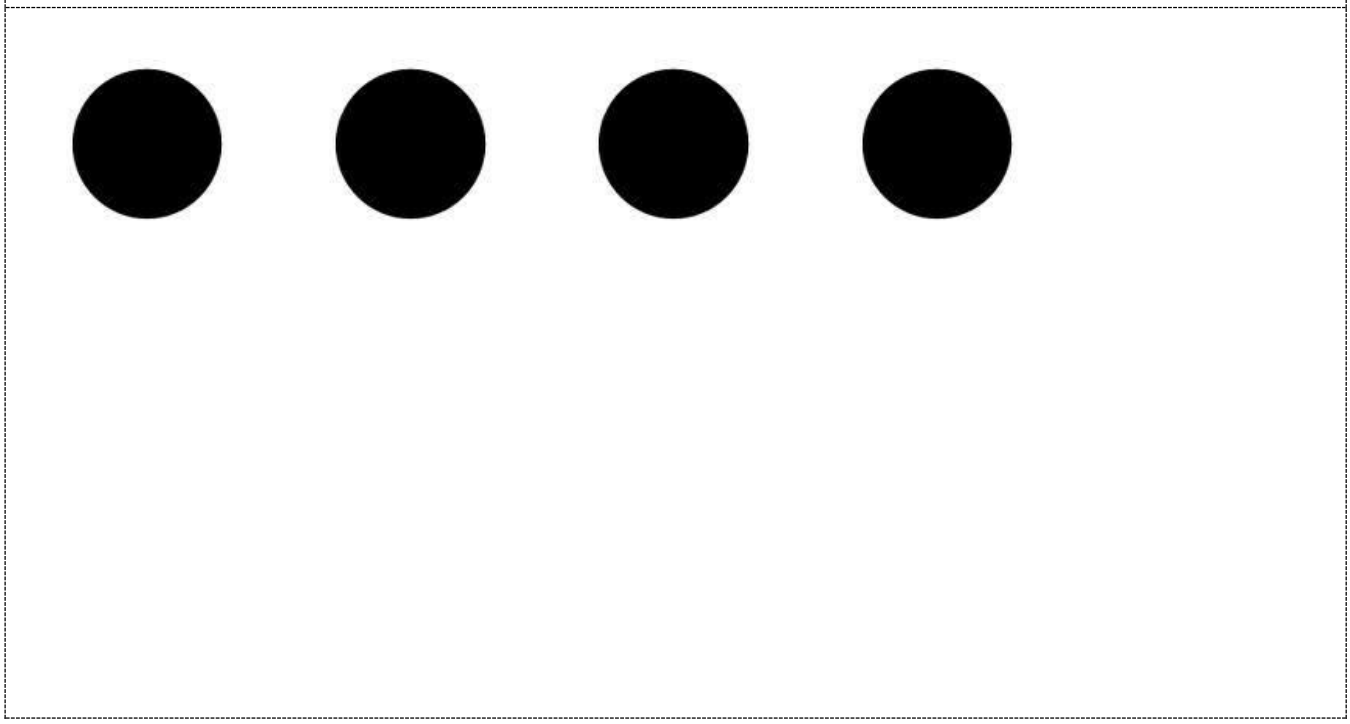


make 5

Note: Only cards 6–10 are used in this lesson. The remaining cards are used in other lessons.

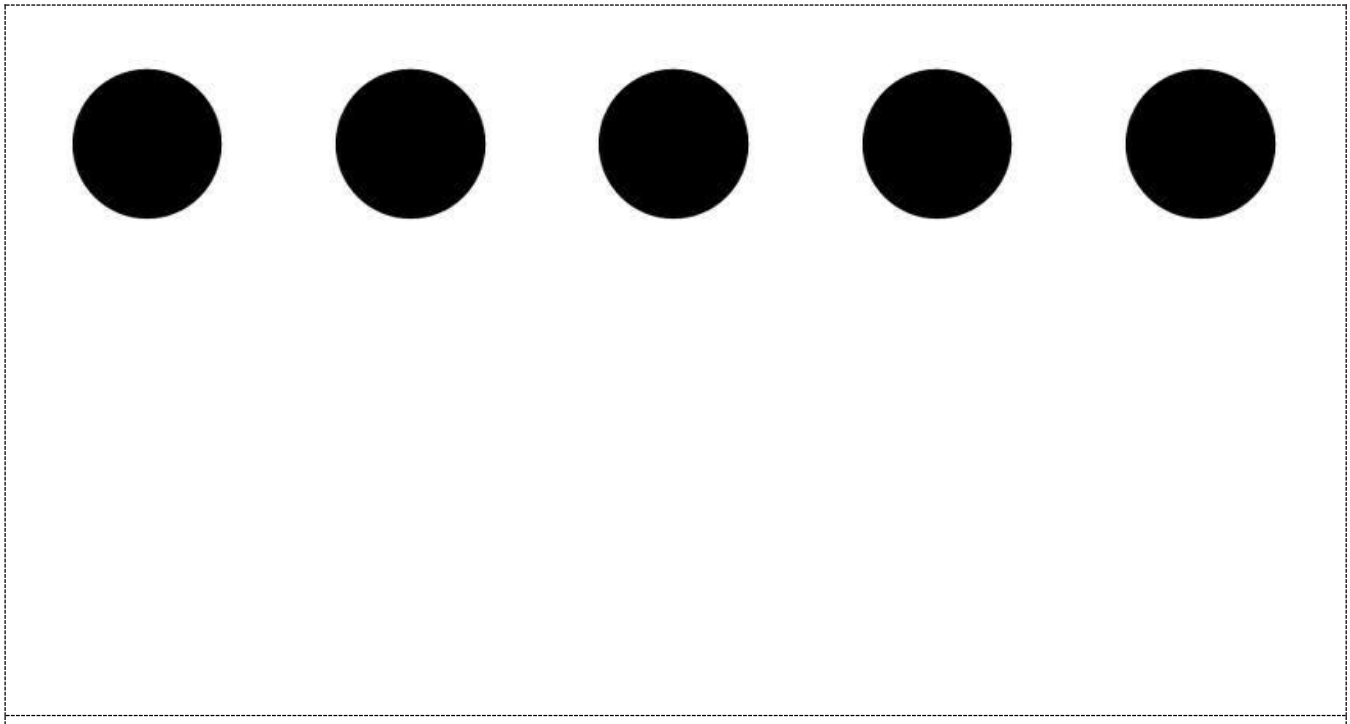
large 5-group cards (Copy on card stock and cut. Save the full set.)

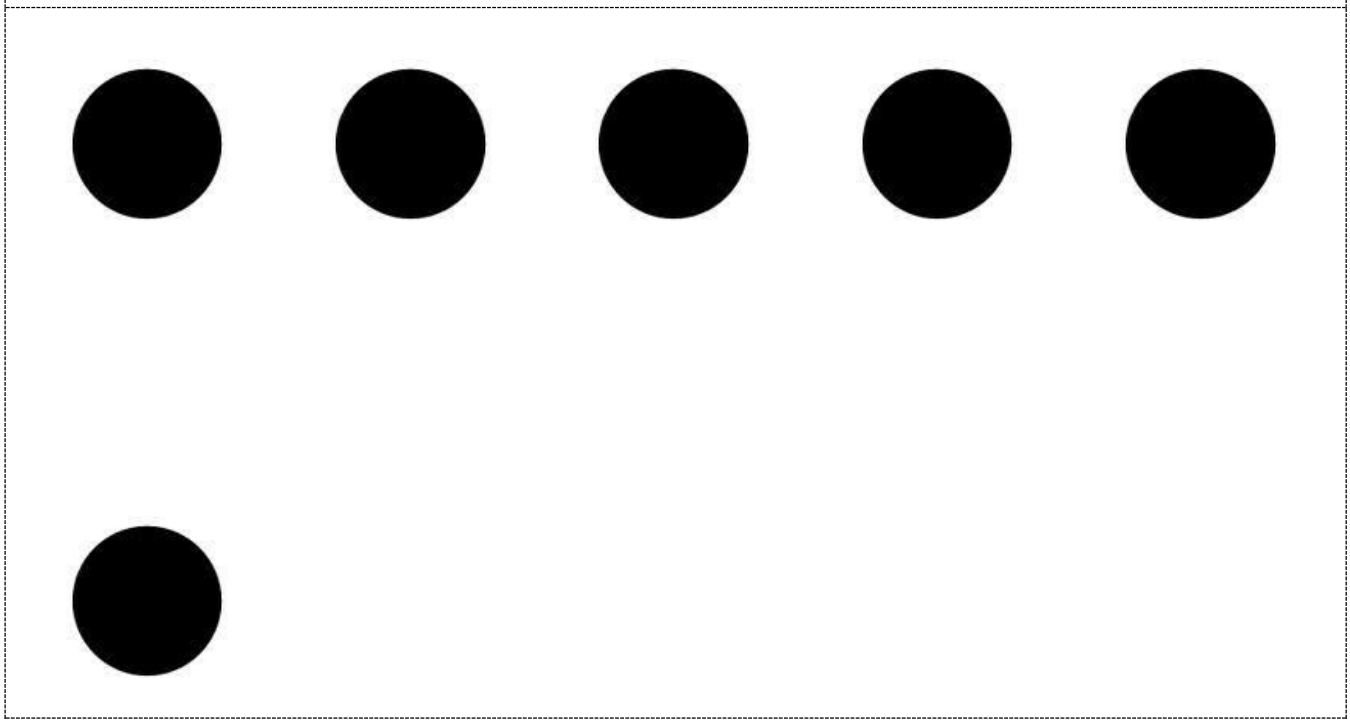




Note: Only cards 6–10 are used in this lesson. The remaining cards are used in other lessons.

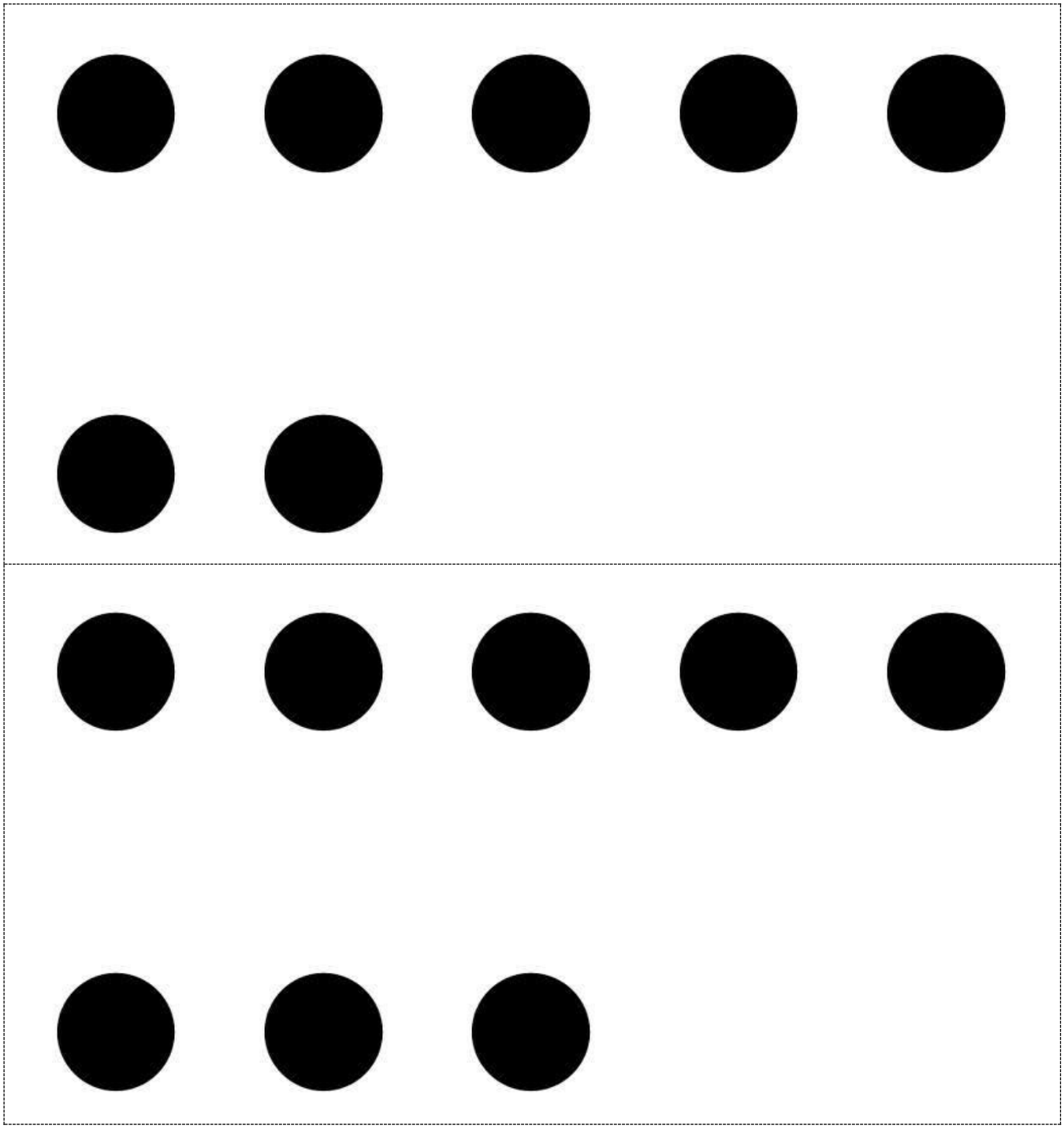
large 5-group cards (Copy on card stock and cut. Save the full set.)





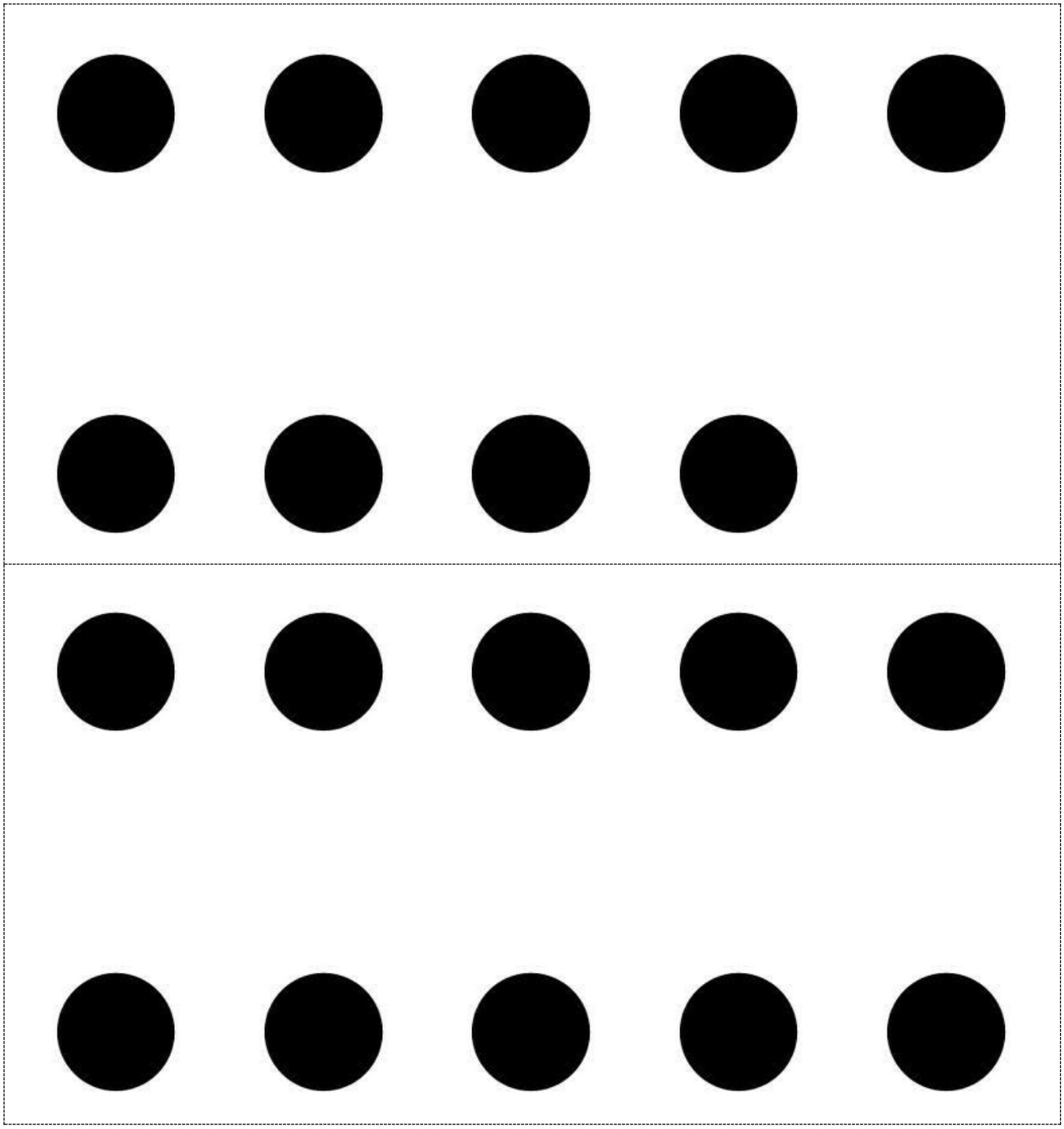
Note: Only cards 6–10 are used in this lesson. The remaining cards are used in other lessons.

large 5-group cards (Copy on card stock and cut. Save the full set.)



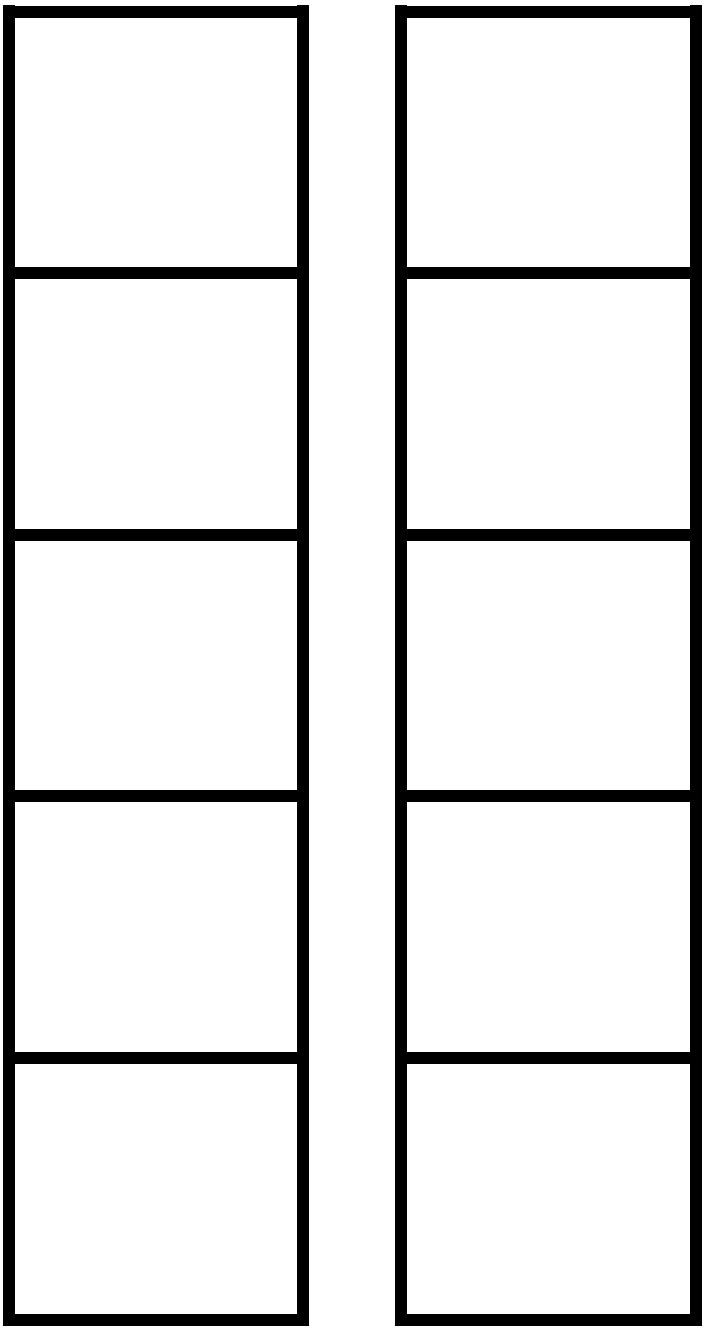
Note: Only cards 6–10 are used in this lesson. The remaining cards are used in other lessons.

large 5-group cards (Copy on card stock and cut. Save the full set.)



Note: Only cards 6–10 are used in this lesson. The remaining cards are used in other lessons.

large 5-group cards (Copy on card stock and cut. Save the full set.)



two 5-group mat