2.3 Addition: Introducing the count-on strategy

In this lesson, students count on one or two from a number represented symbolically rather than pictorially.

Step 1 Preparing the lesson

You will need:

- domino dot cards for 5 and 9 from *The Number Case*
- numeral cards for 4, 6, and 8 from *The Number Case*
- resealable clear plastic bag
- connecting cubes
- 4 count-on cards from Blackline Masters 2.10–2.11
- resources such as counters, ten-frames, DecaCards (use Blackline Masters 2.12 and 2.13), play coins, paper and pencils, small toys, and buttons located in a central part of the room for the students to access

Each student will need:

- Student Journal 2.3

Step 2 Starting the lesson

Have the students sit in a circle on the floor. Start at 50 and count by ones around the circle so each student says only one number name. Stop the counting at 80. Repeat, but starting at 70, moving in the opposite direction, and stopping at 100. Repeat at other times with other number ranges between 50 and 100. (**SMP8**)

Step 3 Teaching the lesson

Ask a student to take a domino dot card and show it to the class. Ask, *What number do you see?* (5.) Have the student place five connecting cubes in a bag so the class can see them. Then say, *I will drop two cubes into the bag. Let's count on from five to find the total.* Count with the students as you drop each cube into the bag, *Five, six, seven.* Ask the student holding the bag, *How many cubes are in your bag?* (7.) Repeat with a different student and the domino dot card for nine counting on one. Repeat with other students and the numeral cards to model 4 add 2, 8 add 1, and 6 add 2.

Display the count-on card for 7 add 1 and discuss the points below:

What numeral do you see? (7.)

How can you show that amount with your fingers?

What else could you use to show that number? (**SMP5**)

How would you find the total? What other way could you do it? (**SMP3**)

What addition fact could we write to show our thinking? (7 + 1 = 8.)

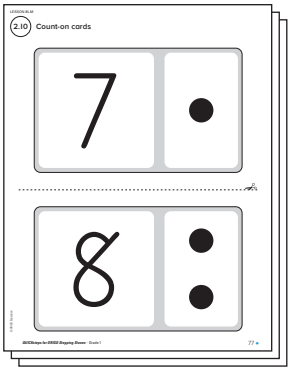
Repeat for the remaining count-on cards.

Work through the Step In discussion (Student Journal 2.3) with the whole class. Read the Step Up and Step Ahead instructions with the students. Make sure they know what to do, then have them work independently to complete the tasks. Organize students into pairs if they experience difficulty solving the problems in Question 2. Encourage them to discuss each problem and decide on the steps they will follow.

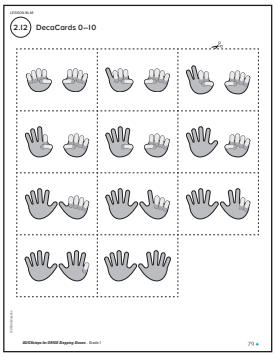
Domino dot cards

Numeral cards

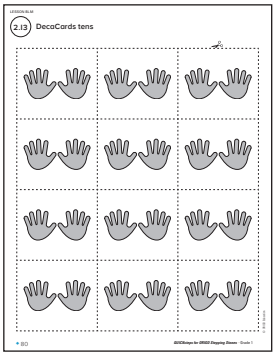
Blackline Masters 2.10–2.11



Blackline Master 2.12



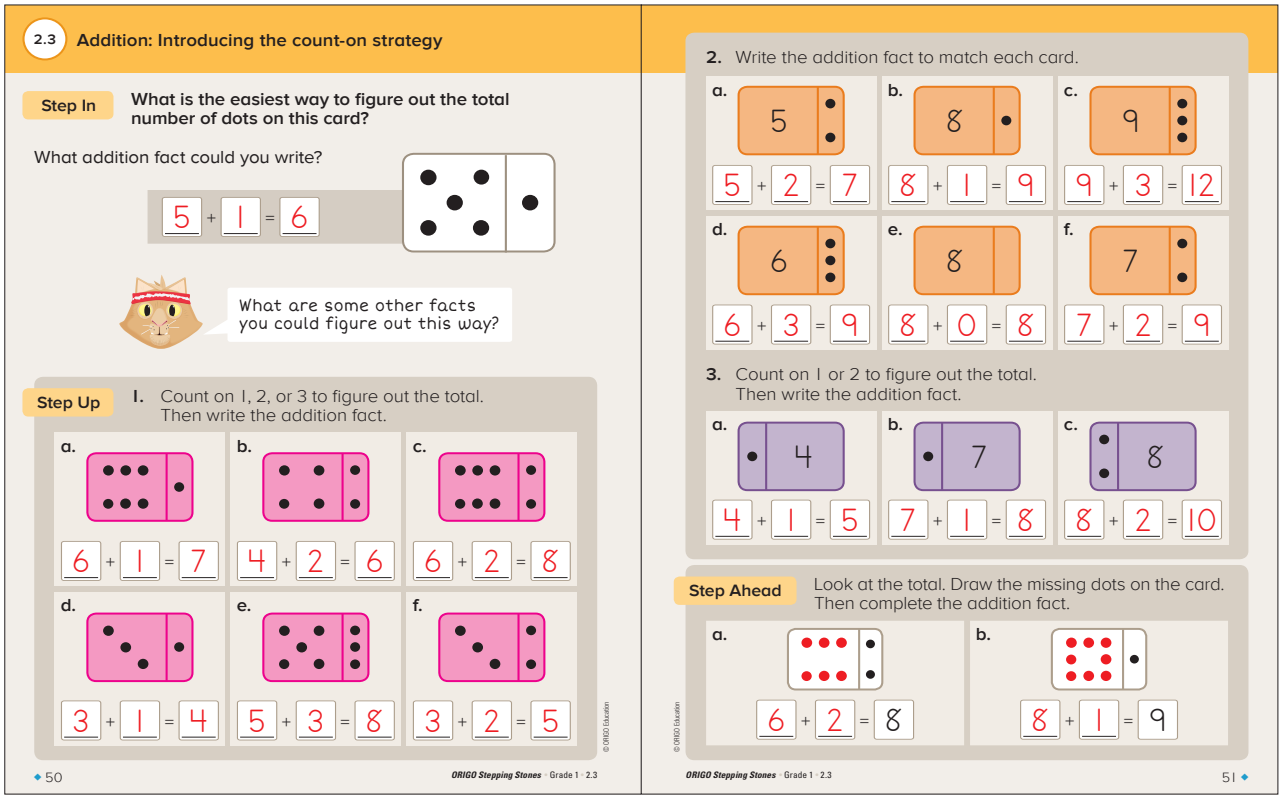
Blackline Master 2.13



1.OA.C.6 Use a strategy (count-on) to add one-digit numbers
1.OA.D.8 Calculate the unknown amount in addition equations
1.NBT.A.1 Rote count forward between 50 and 100

Major clusters
Add and subtract within 20.
Work with addition and subtraction equations.
Extend the counting sequence.

Student Journal 2.3, pp. 50–51



If they are stumped, remind them that they can use materials from the resources center to act out the problem (**SMP5**).

Step 4 Reflecting on the work

Discuss the students' answers to Student Journal 2.3. Discuss the thinking they used to figure out the answers for Question 3. Ask, *What number did you put in your head first? What did you do next? Does it matter which number you put in your head first? Why or why not?*

ELL

Allow the students to give nonverbal cues (such as a thumbs-down) to alert you of any confusion with the concept or language being heard. Create and display an anchor chart with a pictorial and symbolic representation of a count-on strategy.

Applications

If time allows, have the students complete this Investigation and/or Problem solving activity.

Investigation: Representing count-on facts

Each pair of students will need:

- access to general classroom resources (for example, counters, dominoes, five-frames, connecting cubes, links)

Write the investigation question on the board and read it with the students. Ask, *What is a count-on fact? How many different count-on facts do you know?* If needed review what a count-on fact is. Organize students into pairs and explain that they must choose a count-on fact that has a total of ten or less. As a class discuss the steps and materials needed to investigate the question. If needed, write the information on the board. Allow time for students to discuss how they are going to solve the investigation. Have the students work on their representations in their pairs. Bring the class back together and have them share their solutions. Make a list of the different representations on the board. Some examples might include: equations, word story, counters, cubes, pictures, fingers, and five-frames.

Investigation question

How many different ways could our class represent a count-on fact?

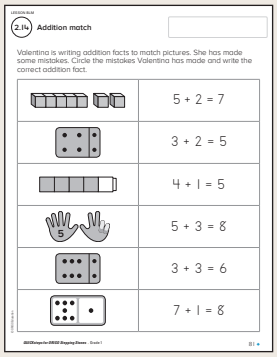
Problem solving: Addition match

Each student will need:

- 1 copy of Blackline Master 2.14
- 10 counters

Distribute the blackline master and read the problem and the equations with the students. Make sure they understand what they need to do. Allow time for them to work independently to find the two incorrect equations. If students are having difficulty with the problem, distribute the counters for them to model the additions situations. After, invite students to share their answers and the correct equations they have written. Ask them to explain how they figured out which equations were incorrect.

Blackline Master 2.14


2.14 Addition match

Valentina is writing addition facts to match pictures. She has made some mistakes. Circle the mistakes Valentina has made and write the correct addition fact.

	5 + 2 = 7
	3 + 2 = 5
	4 + 1 = 5
5	5 + 3 = 8
	3 + 3 = 6
	7 + 1 = 8

Small group differentiation

Extra help

Each pair of students will need:

- domino dot cards for 3 to 9 from *The Number Case*
- numeral cards for 3 to 9 from *The Number Case*
- 1 cube labeled: one dot, one dot, one dot, two dots, two dots, two dots

Organize students into pairs and distribute the resources. Mix the domino dot cards and place them facedown in a pile. In turn, one student turns a card and rolls the cube. That student then starts with the greater amount and counts on one or two according to the dots rolled to find the total. The other student checks the addition and confirms the total. Roles are alternated, and the activity repeated. As students become more proficient, replace the dot cards with the numeral cards and repeat the activity.

Domino dot cards

Numeral cards

Extra practice

Organize students into pairs to play the online *Fundamentals* game, *Roll and Count*.

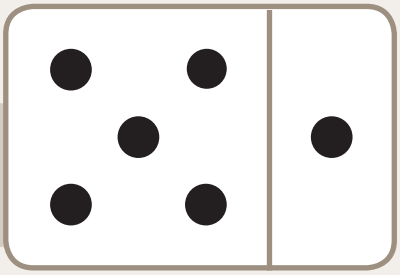
Extra challenge

Organize students into pairs to play the online *Fundamentals* game, *Count On*.

Step In

What is the easiest way to figure out the total number of dots on this card?

What addition fact could you write?



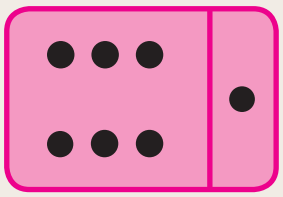
____ + ____ = ____

What are some other facts you could figure out this way?

Step Up

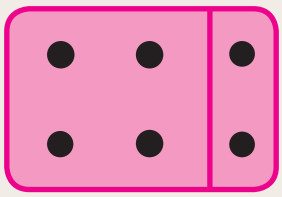
1. Count on 1, 2, or 3 to figure out the total. Then write the addition fact.

a.



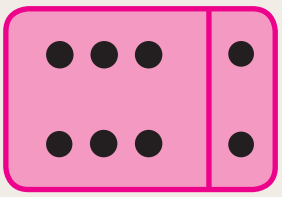
____ + ____ = ____

b.



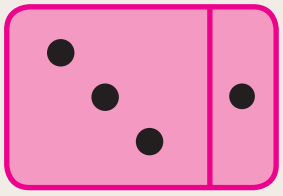
____ + ____ = ____

c.



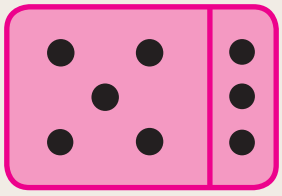
____ + ____ = ____

d.



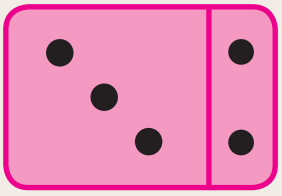
____ + ____ = ____

e.



____ + ____ = ____

f.



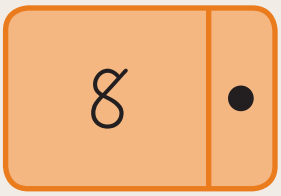
____ + ____ = ____

2. Write the addition fact to match each card.

a.

____ + ____ = ____

b.



____ + ____ = ____

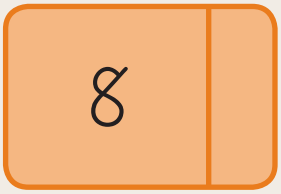
c.

____ + ____ = ____

d.

____ + ____ = ____

e.



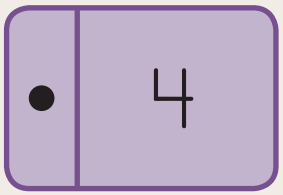
____ + ____ = ____

f.

____ + ____ = ____

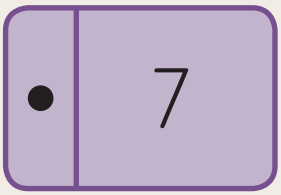
3. Count on 1 or 2 to figure out the total.
Then write the addition fact.

a.



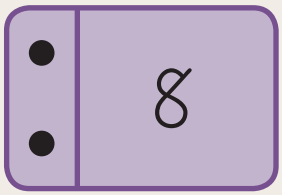
____ + ____ = ____

b.



____ + ____ = ____

c.



____ + ____ = ____

Step Ahead

Look at the total. Draw the missing dots on the card.
Then complete the addition fact.

a.

____ + ____ = 8

b.

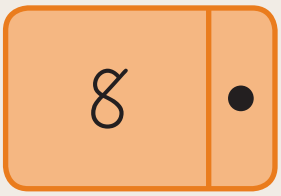
____ + ____ = 9

2. Write the addition fact to match each card.

a.

5 + 2 = 7

b.



8 + 1 = 9

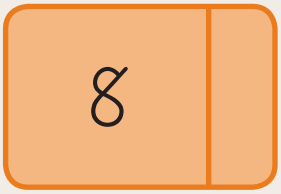
c.

9 + 3 = 12

d.

6 + 3 = 9

e.



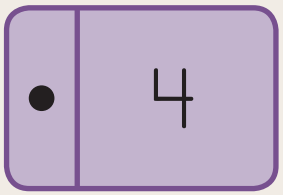
8 + 0 = 8

f.

7 + 2 = 9

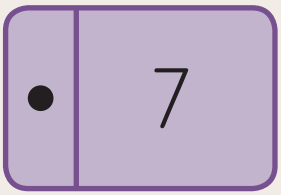
3. Count on 1 or 2 to figure out the total.
Then write the addition fact.

a.



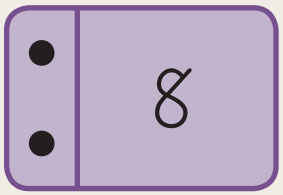
4 + 1 = 5

b.



7 + 1 = 8

c.

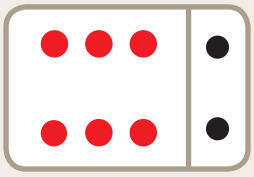


8 + 2 = 10

Step Ahead

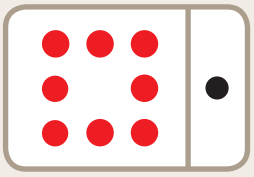
Look at the total. Draw the missing dots on the card.
Then complete the addition fact.

a.



6 + 2 = 8

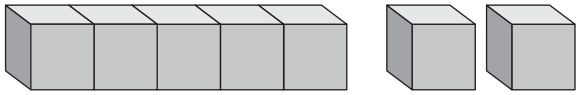
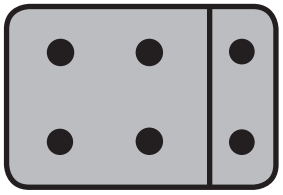
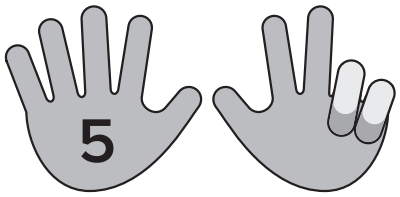
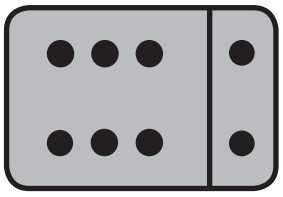
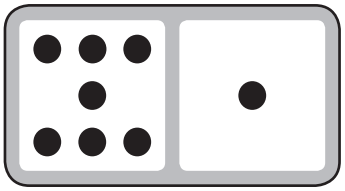
b.



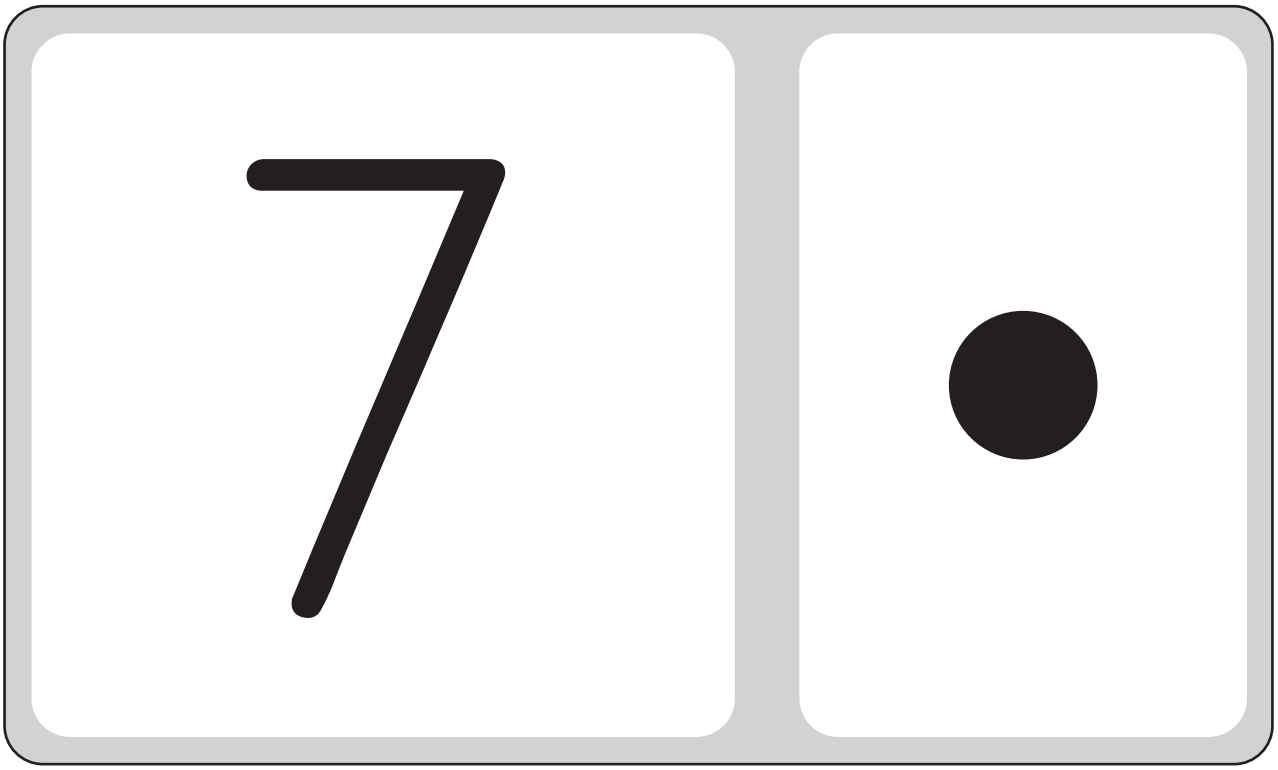
8 + 1 = 9

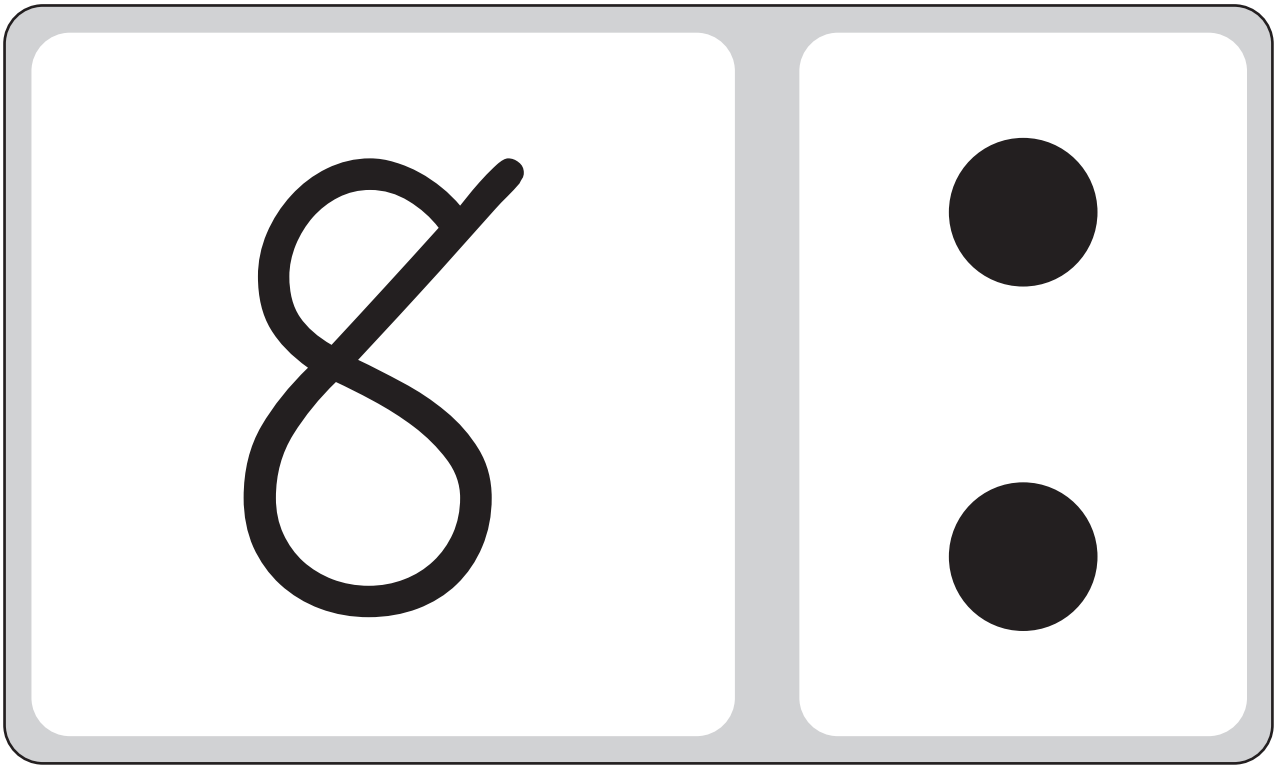
2.14 Addition match

Valentina is writing addition facts to match pictures. She has made some mistakes. Circle the mistakes Valentina has made and write the correct addition fact.

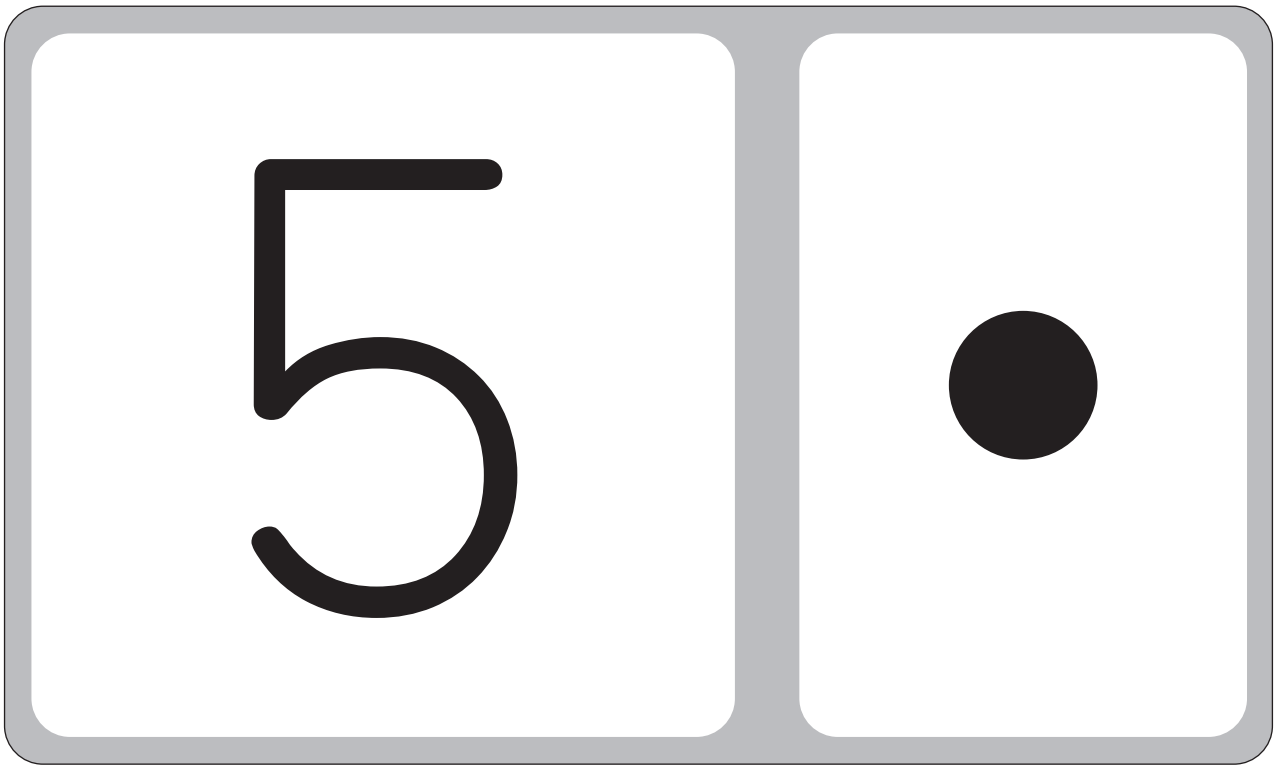
	5 + 2 = 7
	3 + 2 = 5
	4 + 1 = 5
	5 + 3 = 8
	3 + 3 = 6
	7 + 1 = 8

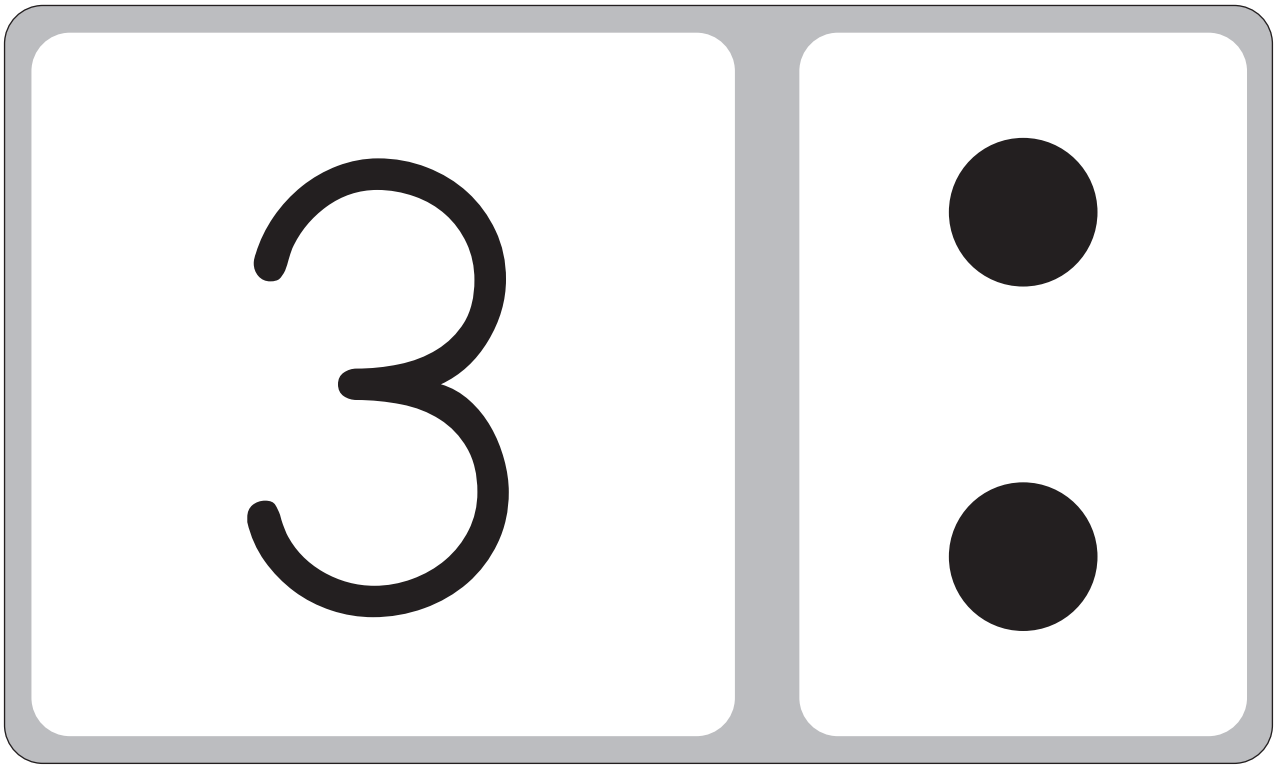
2.10 Count-on cards



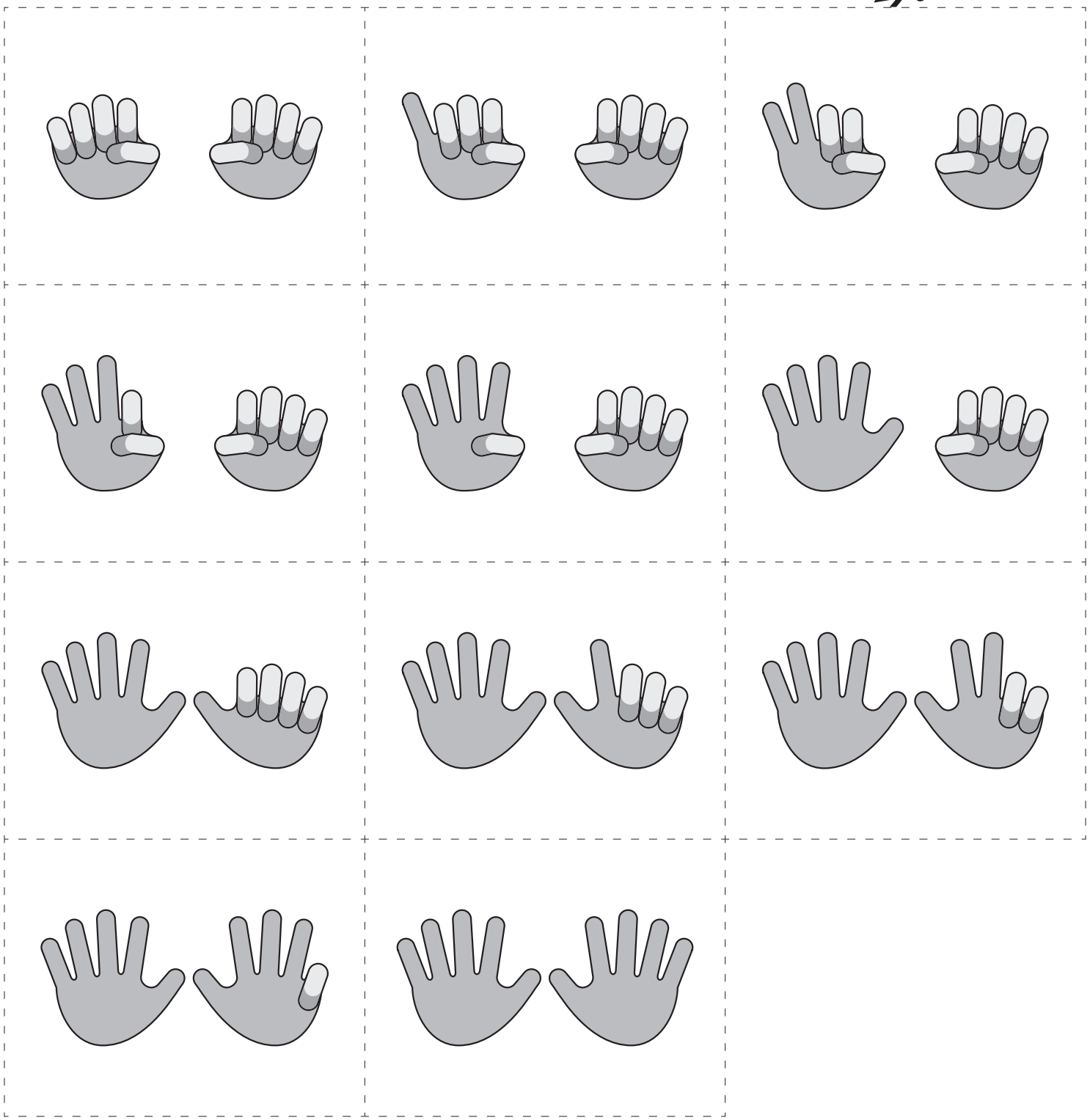


2.11 Count-on cards

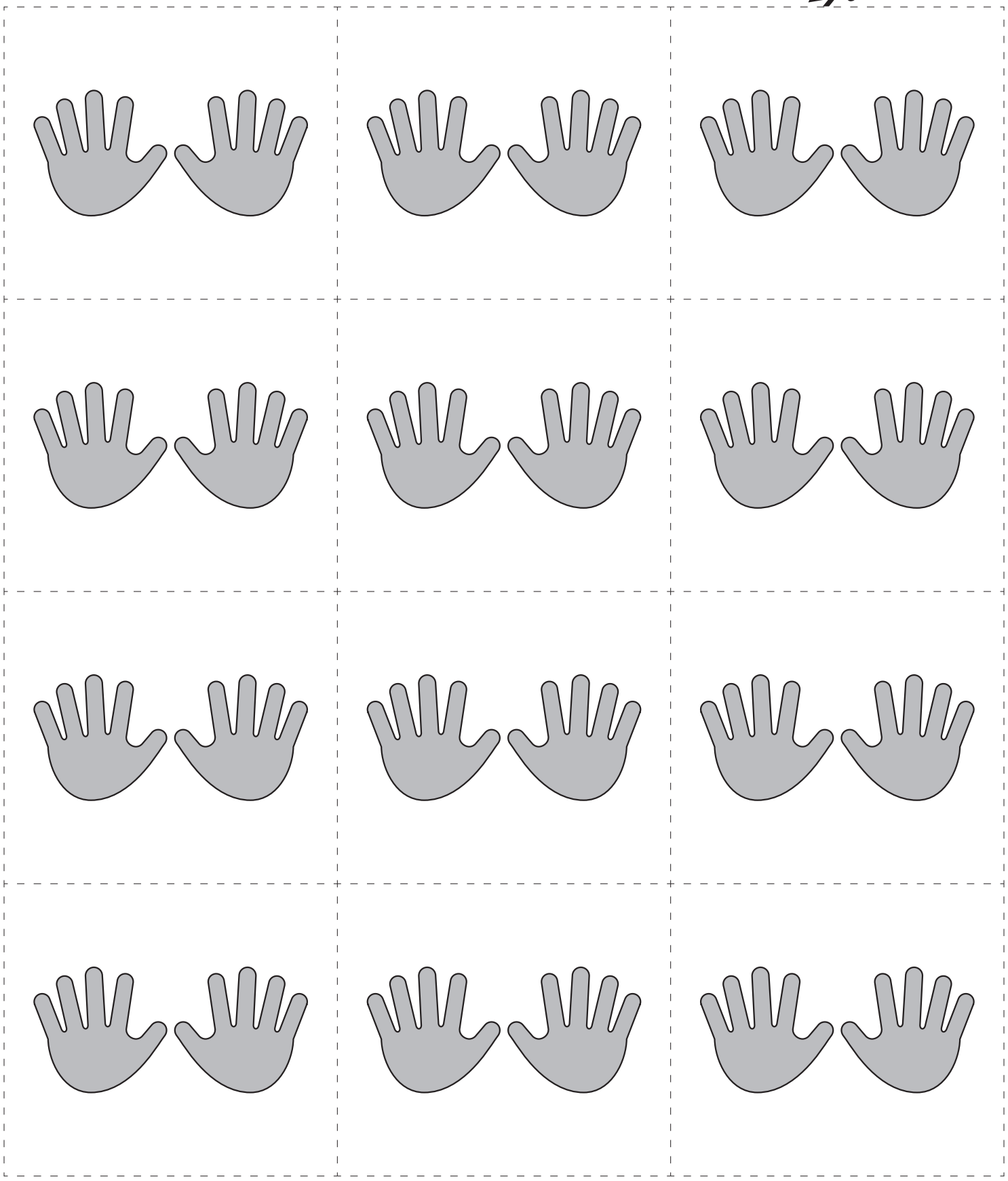




2.12 DecaCards 0–10



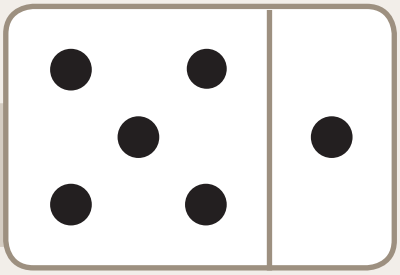
2.13 DecaCards tens



Step In

What is the easiest way to figure out the total number of dots on this card?

What addition fact could you write?



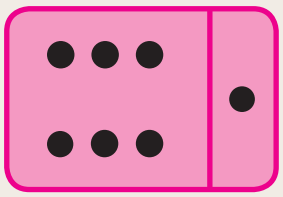
5 + 1 = 6

What are some other facts you could figure out this way?

Step Up

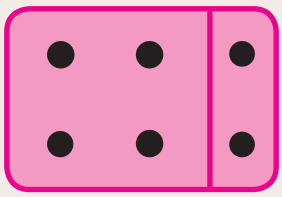
1. Count on 1, 2, or 3 to figure out the total. Then write the addition fact.

a.



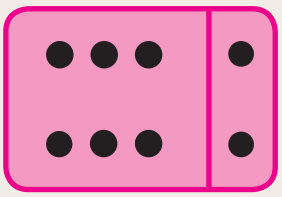
6 + 1 = 7

b.



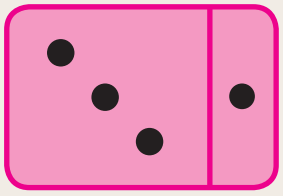
4 + 2 = 6

c.



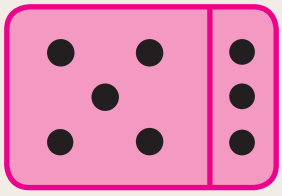
6 + 2 = 8

d.



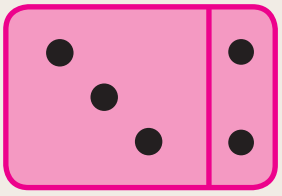
3 + 1 = 4

e.



5 + 3 = 8

f.

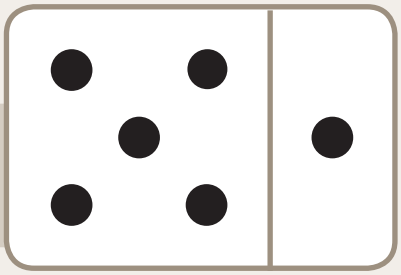


3 + 2 = 5

Conoce

¿Cuál es la manera más fácil de calcular el número total de puntos en esta tarjeta?

¿Qué operación básica de suma podrías escribir?



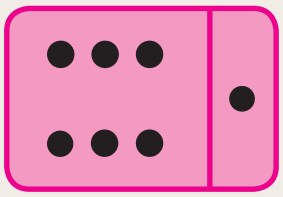
____ + ____ = ____

¿Qué otras operaciones básicas podrías calcular de esta manera?

Intensifica

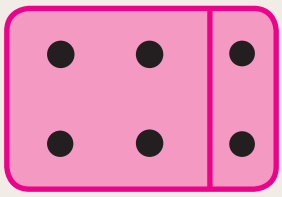
I. Cuenta 1, 2 o 3 hacia delante. Luego escribe la operación básica de suma.

a.



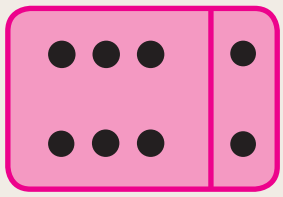
____ + ____ = ____

b.



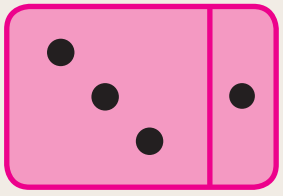
____ + ____ = ____

c.



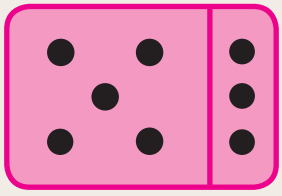
____ + ____ = ____

d.



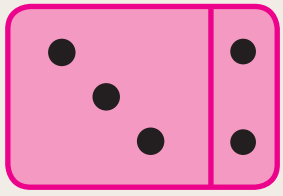
____ + ____ = ____

e.



____ + ____ = ____

f.

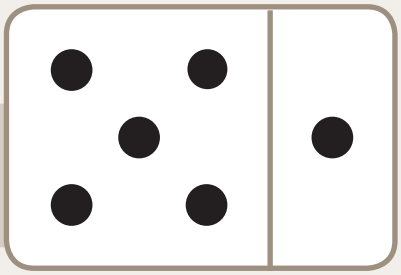


____ + ____ = ____

Conoce

¿Cuál es la manera más fácil de calcular el número total de puntos en esta tarjeta?

¿Qué operación básica de suma podrías escribir?



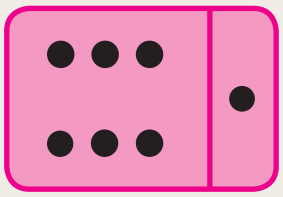
5 + 1 = 6

¿Qué otras operaciones básicas podrías calcular de esta manera?

Intensifica

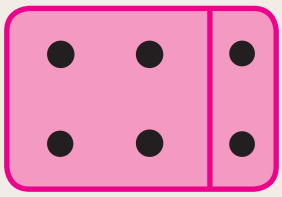
1. Cuenta 1, 2 o 3 hacia delante. Luego escribe la operación básica de suma.

a.



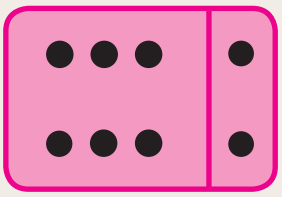
6 + 1 = 7

b.



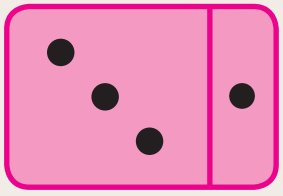
4 + 2 = 6

c.



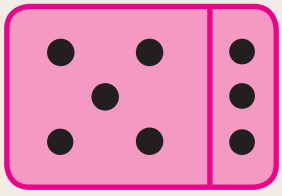
6 + 2 = 8

d.



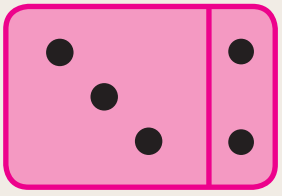
3 + 1 = 4

e.



5 + 3 = 8

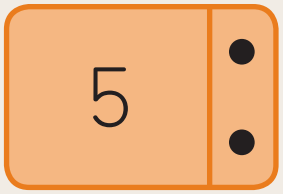
f.



3 + 2 = 5

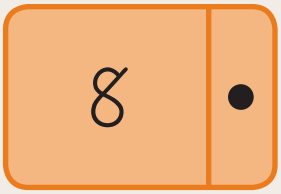
2. Escribe la operación básica de suma que corresponda a cada tarjeta.

a.



____ + ____ = ____

b.



____ + ____ = ____

c.

____ + ____ = ____

d.

____ + ____ = ____

e.

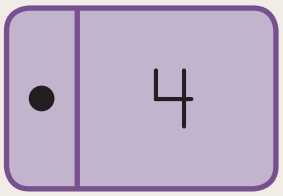
____ + ____ = ____

f.

____ + ____ = ____

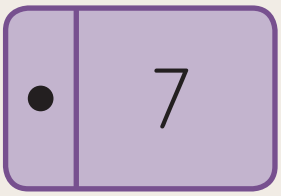
3. Cuenta 1 o 2 hacia delante para calcular el total. Luego escribe la operación básica de suma.

a.



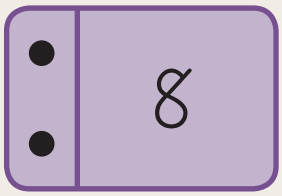
____ + ____ = ____

b.



____ + ____ = ____

c.



____ + ____ = ____

Avanza

Observa el total. Dibuja los puntos que faltan en la tarjeta. Luego completa la operación básica de suma.

a.

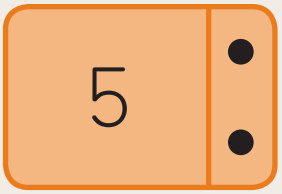
____ + ____ = 8

b.

____ + ____ = 9

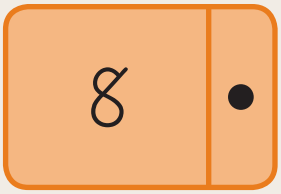
2. Escribe la operación básica de suma que corresponda a cada tarjeta.

a.



5 + 2 = 7

b.



8 + 1 = 9

c.

9 + 3 = 12

d.

6 + 3 = 9

e.

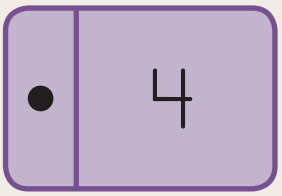
8 + 0 = 8

f.

7 + 2 = 9

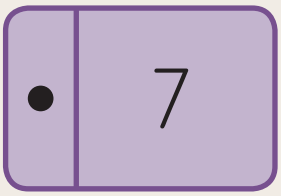
3. Cuenta 1 o 2 hacia delante para calcular el total. Luego escribe la operación básica de suma.

a.



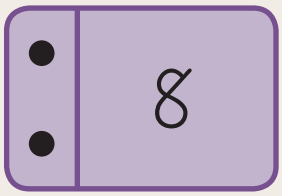
4 + 1 = 5

b.



7 + 1 = 8

c.

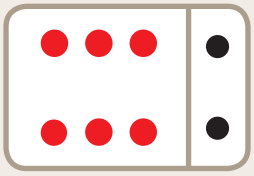


8 + 2 = 10

Avanza

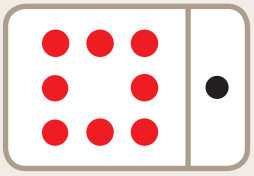
Observa el total. Dibuja los puntos que faltan en la tarjeta. Luego completa la operación básica de suma.

a.



6 + 2 = 8

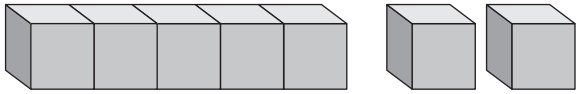
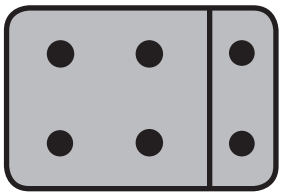
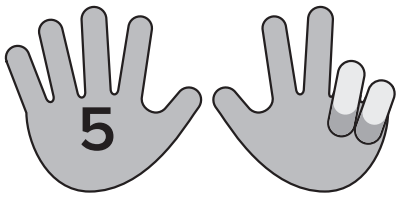
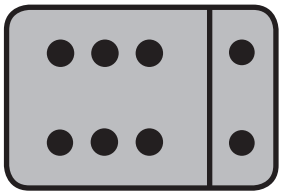
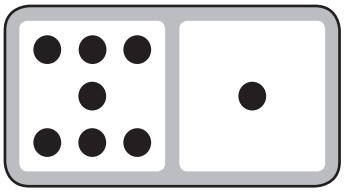
b.

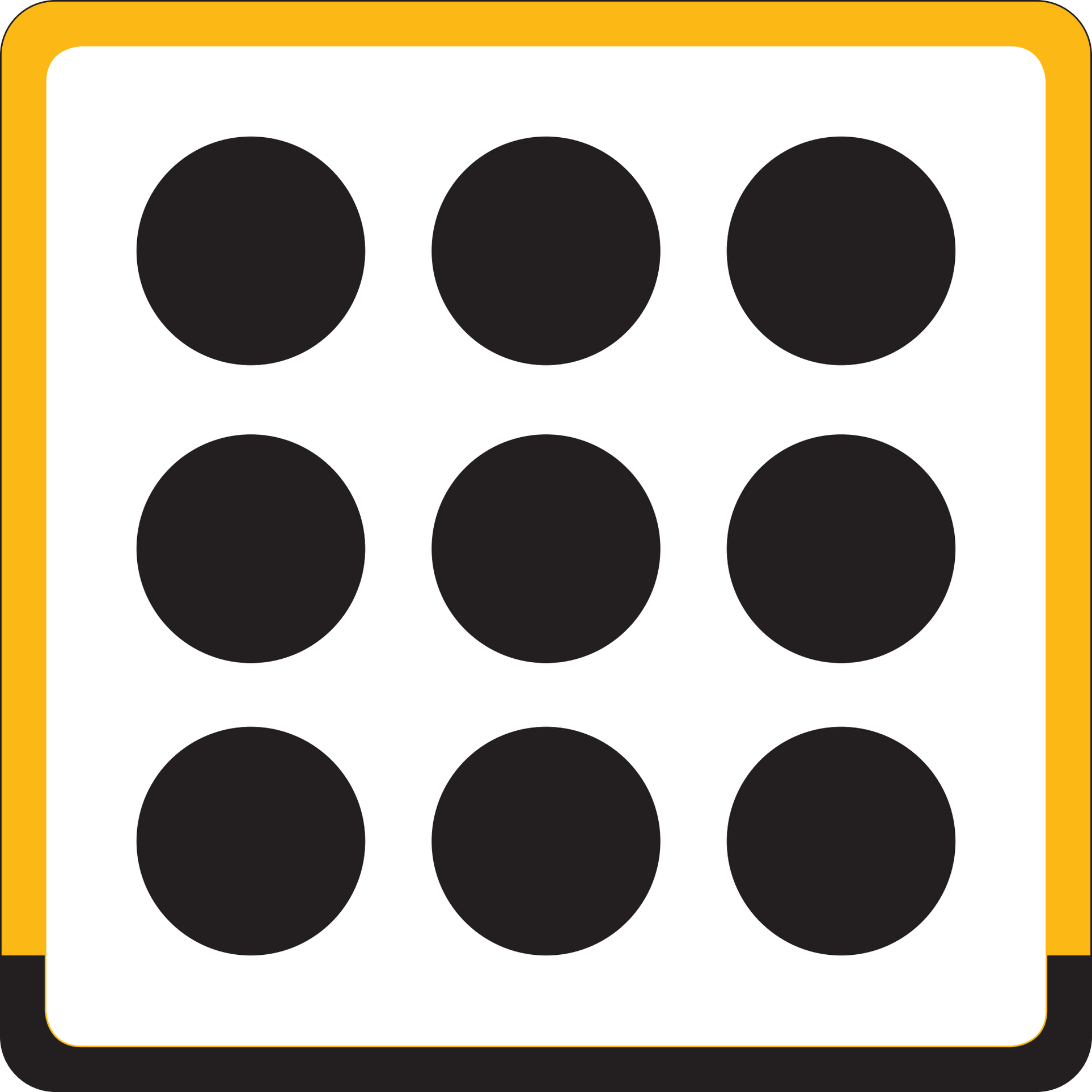


8 + 1 = 9

2.14 Suma correspondiente

Valentina está escribiendo operaciones básicas de suma que corresponden a las imagenes. Ella ha cometido algunos errores. Encierra los errores que cometió Valentina y escribe la operación básica de suma correcta.

	5 + 2 = 7
	3 + 2 = 5
	4 + 1 = 5
	5 + 3 = 8
	3 + 3 = 6
	7 + 1 = 8

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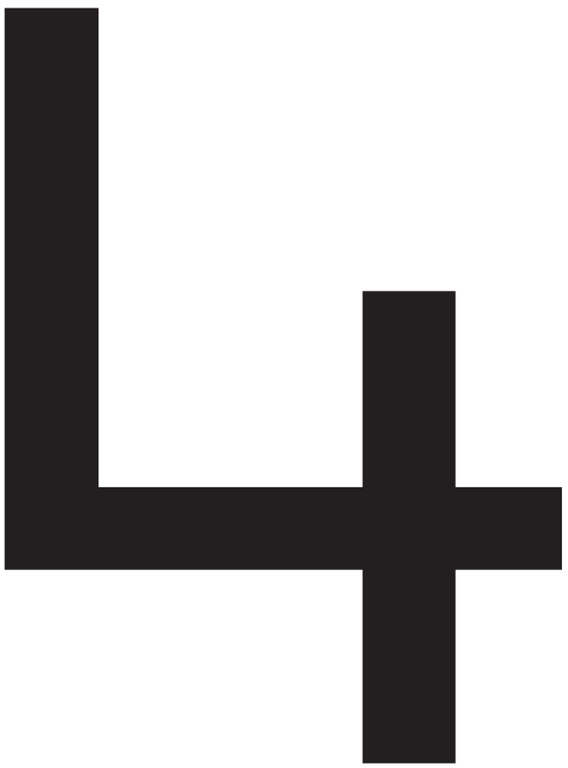


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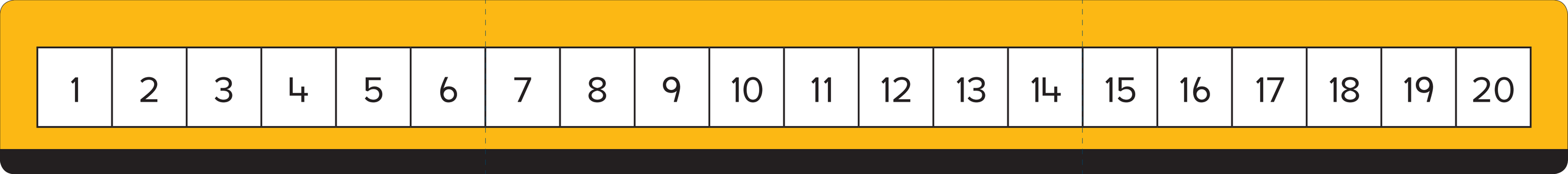
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