2.7 Addition: Extending the count-on strategy (within 20)

In this lesson, students use a number track to count on one or two with totals up to 20.

Step 1 Preparing the lesson

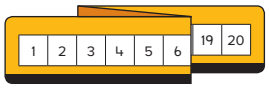
You will need:

- 1 number track from *The Number Case*
- sticky tack
- 1 rabbit puppet made from Blackline Master 2.25

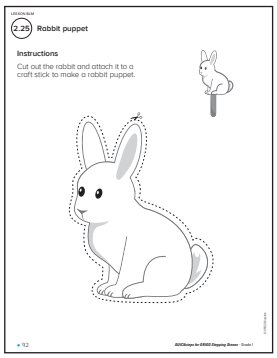
Each student will need:

- Student Journal 2.7

Number track



Blackline Master 2.25



Step 2 Starting the lesson

Organize students into groups of four. Say, *Today we are going to count from one to 100 in our groups. We have to count quickly by ones. Listen as the other students count to make sure they are using the correct counting numbers. Choose one person in your group to start. When I say go, that person starts the count and it continues to their right. When you reach 100, everyone in your group should stand. The team who finishes first wins. Ready? Go!* Listen to the counting to ensure accuracy and to determine the winning team. Repeat if time allows. (**SMP8**)

Step 3 Teaching the lesson

Use the sticky tack to attach the number track to the board. Place the rabbit above 15, and ask, *What number is the rabbit sitting on?* Make two exaggerated hops to place the rabbit above 17. As you make the hops, count aloud, *Fifteen, sixteen, seventeen.* Then ask, *What addition equation could we write to match the hops?* Through discussion, establish that the rabbit started at 15 and made two hops to land on 17. Write 15 + 2 = 17 on the board. Repeat the discussion with 16 + 1, 17 + 2, and 9 + 2.

Invite one student to come to the front and use the rabbit to model an addition situation by making one or two hops along the number track (**SMP5**). Have another student write the matching addition equation on the board. Repeat with different students as time allows. Encourage the students to justify the equation they have written, and in turn invite other students to critique their reasoning. (**SMP3**) To assist, provide sentence stems such as:

My equation matches because … Do you agree?

I wrote the equation … Does it make sense?

Work through the Step In discussion (Student Journal 2.7) 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.

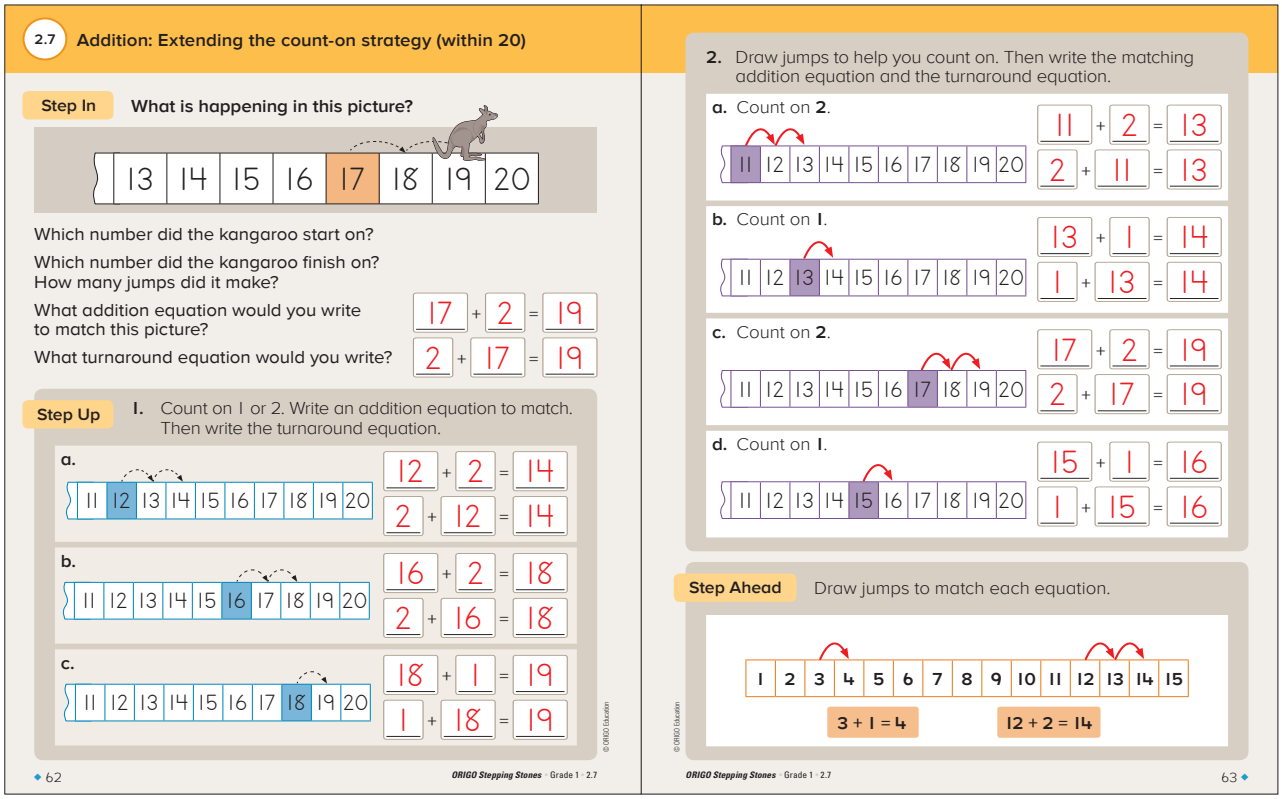
ELL

Provide the students with their own number track and counter to mimic the hops they see on the board. Have the students discuss the word *equation* before moving on with the activity.

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

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

Student Journal 2.7, pp. 62–63



2.7 Addition: Extending the count-on strategy (within 20)

Step In What is happening in this picture?

13 14 15 16 17 18 19 20

Which number did the kangaroo start on?
Which number did the kangaroo finish on?
How many jumps did it make?
What addition equation would you write to match this picture? 17 + 2 = 19
What turnaround equation would you write? 2 + 17 = 19

Step Up 1. Count on 1 or 2. Write an addition equation to match. Then write the turnaround equation.

a. 11 12 13 14 15 16 17 18 19 20
12 + 2 = 14
2 + 12 = 14

b. 11 12 13 14 15 16 17 18 19 20
16 + 2 = 18
2 + 16 = 18

c. 11 12 13 14 15 16 17 18 19 20
18 + 1 = 19
1 + 18 = 19

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2. Draw jumps to help you count on. Then write the matching addition equation and the turnaround equation.

a. Count on 2. 11 12 13 14 15 16 17 18 19 20
11 + 2 = 13
2 + 11 = 13

b. Count on 1. 11 12 13 14 15 16 17 18 19 20
13 + 1 = 14
1 + 13 = 14

c. Count on 2. 11 12 13 14 15 16 17 18 19 20
17 + 2 = 19
2 + 17 = 19

d. Count on 1. 11 12 13 14 15 16 17 18 19 20
15 + 1 = 16
1 + 15 = 16

Step Ahead Draw jumps to match each equation.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
3 + 1 = 4
12 + 2 = 14

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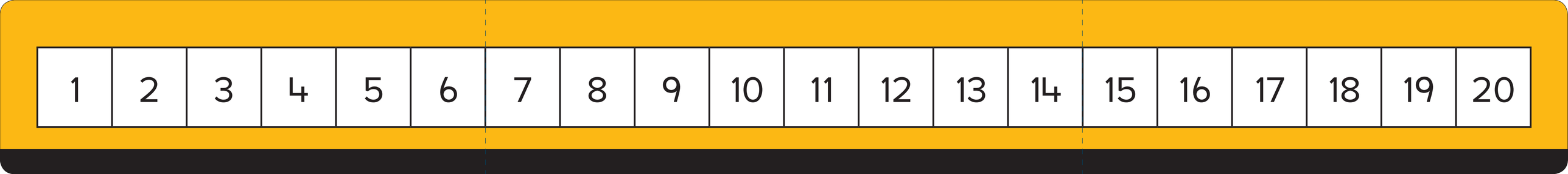
ORIGO Stepping Stones · Grade 1 · 2.7 63

Step 4 Reflecting on the work

Discuss the students' answers to Student Journal 2.7. Refer to Step Ahead and ask, *How did you figure out where to draw the jumps to match each equation? Is there another way you could do it?*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Applications

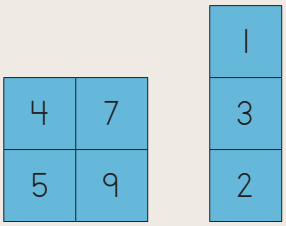
If time allows, have the students complete this Investigation and/or Problem solving activity.

Investigation: Working with addition facts

Write the investigation question and draw the targets, as shown, on the board. Read the problem with the students and explain that one small beanbag is being tossed onto each of the targets. The two numbers that the beanbag lands on will form the addition fact and the turnaround fact. For example, if the beanbag lands on 9 and 3, the addition facts will be 9 + 3 = 12 and 3 + 9 = 12. Organize students into pairs and explain that they need to record all possible facts. When the students have completed the activity, ask, *How many different addition facts and turnaround facts could be written?* (24.) *How did you figure it out?*

Investigation question

What different possible addition facts and their turnaround facts could you write if you tossed one beanbag onto each of these number targets?



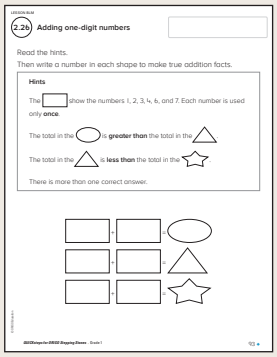
Problem solving: Adding one-digit numbers

Each student will need:

- 1 copy of Blackline Master 2.26

Distribute the blackline master. Read the problem and the hints with the class and make sure they understand that there is more than one possible correct answer. Afterward, invite students to share their answers. Discuss questions such as, *What did you do first to solve the problem? Is there a different way you could figure out where to write the numbers?*

Blackline Master 2.26



Small group differentiation

Extra help

Each pair of students will need:

- numeral cards for 1 to 20 from *The Number Case*
- 1 number track from *The Number Case*
- counter

Organize students into pairs and distribute the resources. Mix the cards and place them facedown in a pile. One student selects a card and says the number aloud. The other student places the counter on that number on the number track, and then count on one or two by moving their counter to show the jump/s on the number track. Roles are alternated and the activity repeated until all the cards are used.

Numeral cards

Number track

Extra practice

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

Extra challenge

Each pair of students will need:

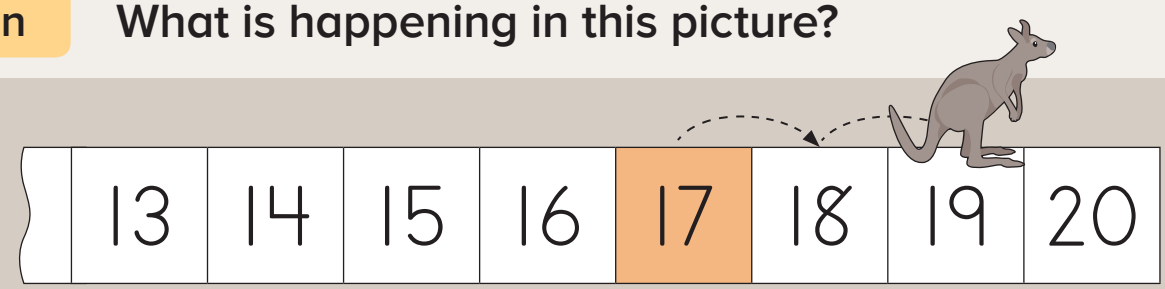
- 20 blank cards
- 2 non-permanent markers

Organize students into pairs and distribute the resources. One student writes a count-on-1 or count-on-2 equation involving a teen number on one of the blank cards. The other student then writes the turnaround equation to match on another card. Roles are alternated and the activity continues until all the cards are used. The students then use the cards to play matching games such as *Memory*.

2.7 Addition: Extending the count-on strategy (within 20)

Step In

What is happening in this picture?

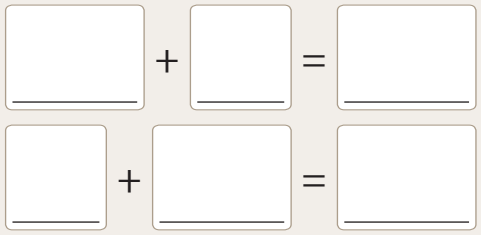


Which number did the kangaroo start on?

Which number did the kangaroo finish on?
How many jumps did it make?

What addition equation would you write to match this picture?

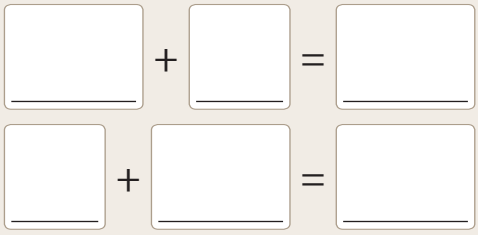
What turnaround equation would you write?



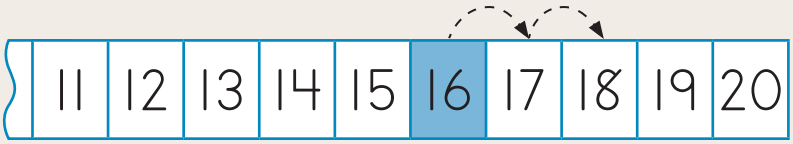
Step Up

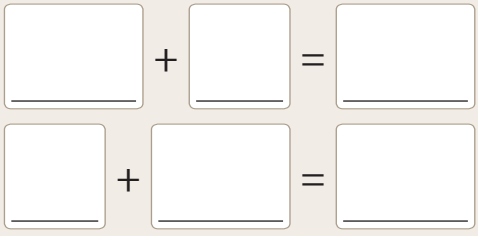
1. Count on 1 or 2. Write an addition equation to match. Then write the turnaround equation.

a.

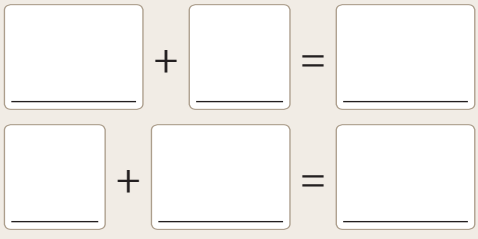


b.





c.



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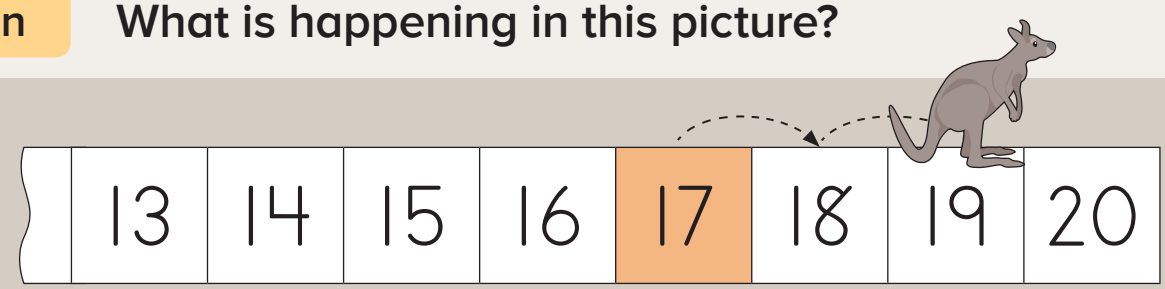
2.7 Addition: Extending the count-on strategy (within 20)

Step In

What is happening in this picture?



Which number did the kangaroo start on?

Which number did the kangaroo finish on?
How many jumps did it make?

What addition equation would you write to match this picture?

$17 + 2 = 19$

What turnaround equation would you write?

$2 + 17 = 19$

Step Up

1. Count on 1 or 2. Write an addition equation to match. Then write the turnaround equation.

a.

$12 + 2 = 14$

$2 + 12 = 14$

b.

$16 + 2 = 18$

$2 + 16 = 18$

c.

$18 + 1 = 19$

$1 + 18 = 19$

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2. Draw jumps to help you count on. Then write the matching addition equation and the turnaround equation.

a. Count on **2**.

____ + ____ = ____

____ + ____ = ____

b. Count on **1**.

____ + ____ = ____

____ + ____ = ____

c. Count on **2**.

____ + ____ = ____

____ + ____ = ____

d. Count on **1**.

____ + ____ = ____

____ + ____ = ____

Step Ahead Draw jumps to match each equation.

3 + 1 = 4

12 + 2 = 14

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2. Draw jumps to help you count on. Then write the matching addition equation and the turnaround equation.

a. Count on **2**.

11 + 2 = 13

2 + 11 = 13

b. Count on **1**.

13 + 1 = 14

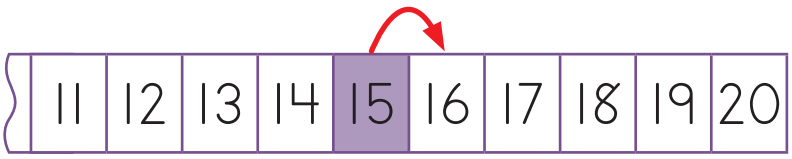
1 + 13 = 14

c. Count on **2**.

17 + 2 = 19

2 + 17 = 19

d. Count on **1**.



15 + 1 = 16

1 + 15 = 16

Step Ahead Draw jumps to match each equation.

3 + 1 = 4

12 + 2 = 14

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2. Dibuja saltos como ayuda para contar hacia delante. Luego escribe la ecuación de suma correspondiente y su ecuación conmutativa.

a. Cuenta **2** hacia delante.

11	12	13	14	15	16	17	18	19	20

____ + ____ = ____

____ + ____ = ____

b. Cuenta **1** hacia delante.

11	12	13	14	15	16	17	18	19	20

____ + ____ = ____

____ + ____ = ____

c. Cuenta **2** hacia delante.

11	12	13	14	15	16	17	18	19	20

____ + ____ = ____

____ + ____ = ____

d. Cuenta **1** hacia delante.

11	12	13	14	15	16	17	18	19	20

____ + ____ = ____

____ + ____ = ____

Avanza Dibuja los saltos que correspondan a cada ecuación.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

3 + 1 = 4

12 + 2 = 14

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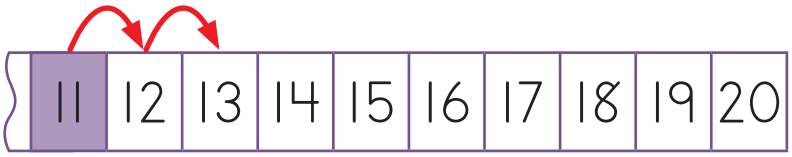
2. Dibuja saltos como ayuda para contar hacia delante. Luego escribe la ecuación de suma correspondiente y su ecuación conmutativa.

a. Cuenta **2** hacia delante.



11 + 2 = 13

2 + 11 = 13

b. Cuenta **1** hacia delante.

13 + 1 = 14

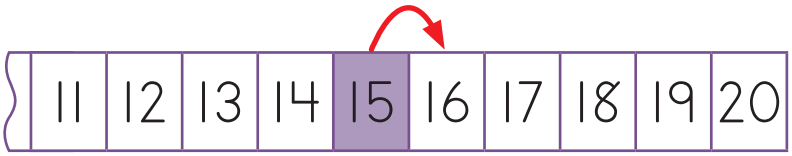
1 + 13 = 14

c. Cuenta **2** hacia delante.

17 + 2 = 19

2 + 17 = 19

d. Cuenta **1** hacia delante.



15 + 1 = 16

1 + 15 = 16

Avanza Dibuja los saltos que correspondan a cada ecuación.

3 + 1 = 4

12 + 2 = 14

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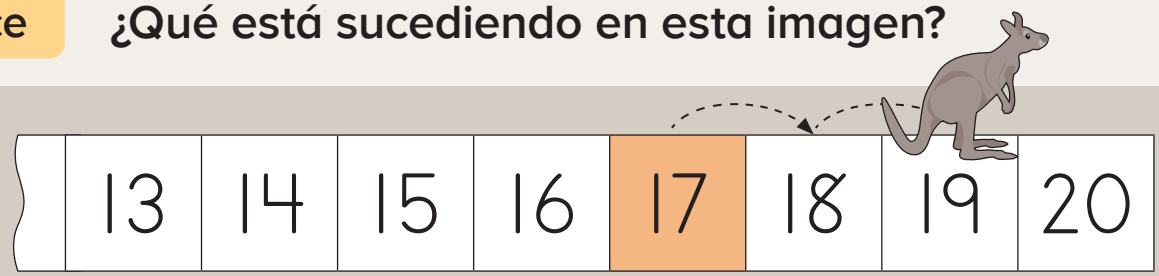
2.7 Suma: Ampliando la estrategia de contar hacia delante (hasta 20)

Conoce

¿Qué está sucediendo en esta imagen?



¿En cuál número comenzó el canguro?

¿En cuál número terminó el canguro? ¿Cuántos saltos dio?

¿Qué ecuación de suma escribirías para esta imagen? ____ + ____ = ____

¿Qué ecuación conmutativa escribirías? ____ + ____ = ____

Intensifica

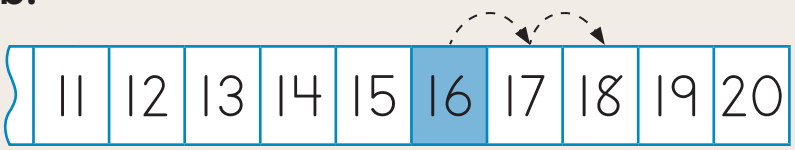
I. Cuenta 1 o 2 hacia delante. Escribe la ecuación de suma correspondiente. Luego escribe la ecuación conmutativa.

a.

____ + ____ = ____

____ + ____ = ____

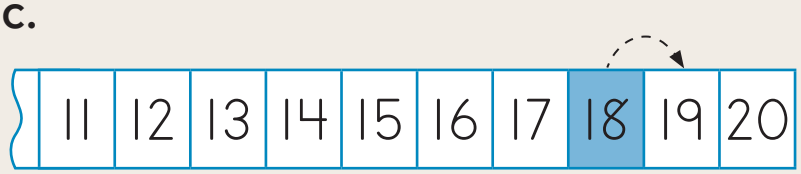
b.



____ + ____ = ____

____ + ____ = ____

c.



____ + ____ = ____

____ + ____ = ____

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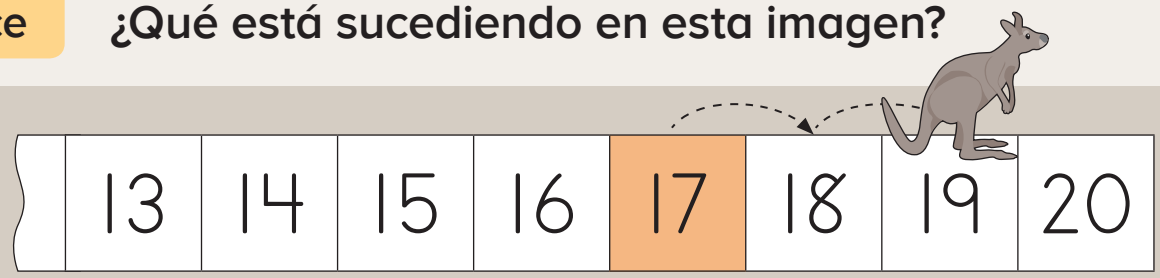
2.7 Suma: Ampliando la estrategia de contar hacia delante (hasta 20)

Conoce

¿Qué está sucediendo en esta imagen?



¿En cuál número comenzó el canguro?

¿En cuál número terminó el canguro? ¿Cuántos saltos dio?

¿Qué ecuación de suma escribirías para esta imagen?

17 + 2 = 19

¿Qué ecuación conmutativa escribirías?

2 + 17 = 19

Intensifica

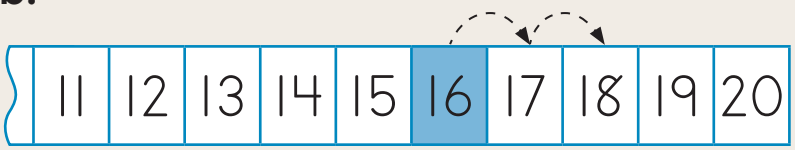
I. Cuenta 1 o 2 hacia delante. Escribe la ecuación de suma correspondiente. Luego escribe la ecuación conmutativa.

a.

12 + 2 = 14

2 + 12 = 14

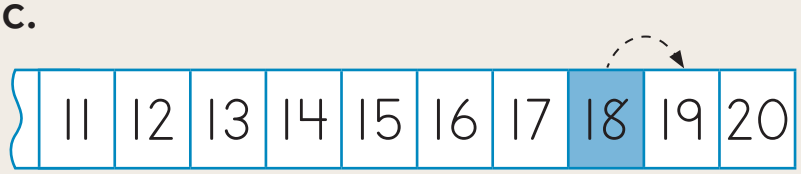
b.



16 + 2 = 18

2 + 16 = 18

c.



18 + 1 = 19

1 + 18 = 19

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1

2

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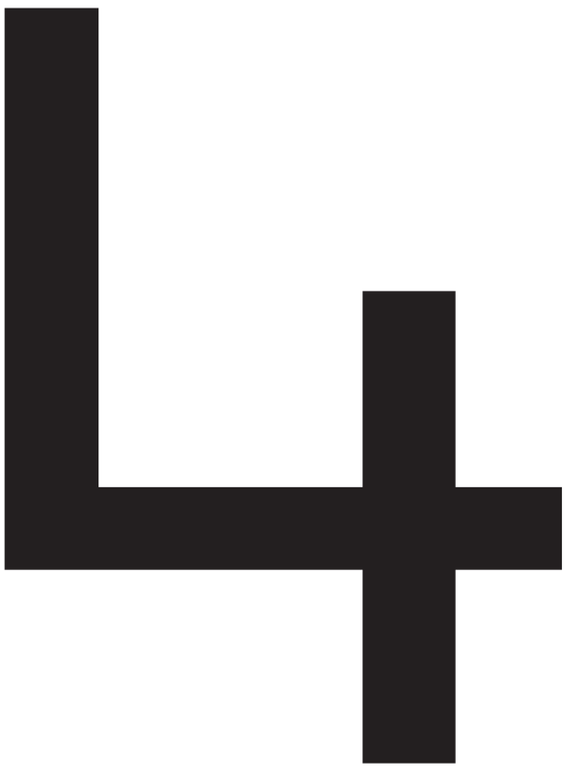

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