Notice and Wonder: Connecting Cubes

Use with Problem 1.

I notice . . .



the cubes are . . .



this cube is . . .

Word bank			
English	Español		
big	grande		
color	color		
flat	plano		
round	redondo		
short	corto		
small	pequeño		
square	cuadrado		
tall	alto		

I wonder...

	Word bank						
Example Ejemplo							
English	build	connect	count	pattern	sort	stack	
Español	construir	conectar	contar	patrón	clasificar	apilar	

Notice and Wonder: Pattern Blocks

Use with Problem 1.

I notice . . .



these pattern blocks are . . .



this pattern block is . . .

Word bank			
English	Español		
big	grande		
color	color		
different	diferente		
pointy	puntiagudo		
round	redondo		
shape	figura		
similar	similar		
small	pequeño		
square	cuadrado		
triangle	triángulo		

I wonder...

Word bank						
Example Ejemplo						
English	build	count	pattern	sort	stack	
Español	construir	contar	patrón	clasificar	apilar	

Solid Shapes

Use with Problem 1.

I notice . . .



these shapes are . . .



this shape is . . .

Word bank			
English	Español		
color	color		
curved	curvo		
flat	plano		
round	redondo		
shape	forma		
short	corto		
solid	sólido		
straight	recto		
tall	alto		

I wonder...

Word bank					
Example Ejemplo					
English	build	count	pattern	sort	
Español	construir	contar	patrón	clasificar	

Notice and Wonder: Counters and 5-Frames

Use with Problem 1.





I notice . . .

there are . . .

some of these are . . .

I wonder . . .

Word bank			
English	Español		
black	negro		
box	caja		
circle	círculo		
color	color		
first	primero		
five	cinco		
red	rojo		
round	redondo		
square	cuadrado		
yellow	amarillo		

Connecting Cubes

Use with Problem 1.

First, I...

Then I...

My partner started by . . .

Then my partner . . .

We both . . .

I _____, but my partner _____.

Word bank			
English	Español		
card	tarjeta		
cube	cubo		
different	diferente		
each	cada		
object	objeto		
picture	imagen		
same	igual		

Word bank					
Example Ejemplo		o was a second	1 2 3 4 5		
English	build	connect	count	sort	stack
Español	construir	conectar	contar	clasificar	apilar

Date

Classroom Scavenger Hunt

Use with Problem 1.

I found a group of . . .

This group is . . .

There are _____ in the group (number) (objects) group.

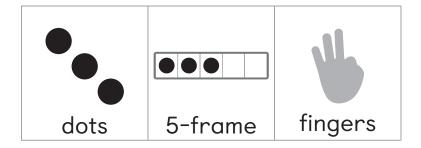
The ____are similar because . . . (objects)

The ____are different because . . .

Word bank			
English	Español		
color	color		
different	diferente		
group	grupo		
large	grande		
number	número		
object	objeto		
shape	figura		
similar	similar		
size	tamaño		
small	pequeño		

Matching Groups

Use with Problem 5.



These match because . . .

These do not match because . . .

This one shows . . .

Word bank			
English	Español		
card	tarjeta		
different	diferente		
group	grupo		
match	emparejar		
number	número		
row	fila		
same	igual		
one	uno		
two	dos		
three	tres		
four	cuatro		

Flash and Find

Use with Activity 1.

Word bank					
English different group number same					
Español	diferente	grupo	número	igual	



To open the backpack I need to . . .



The backpack shows ____ dots.



This group shows ____ dots.



The groups of dots $\underline{\hspace{1cm}}$ the same because . . . $\underline{\hspace{1cm}}$

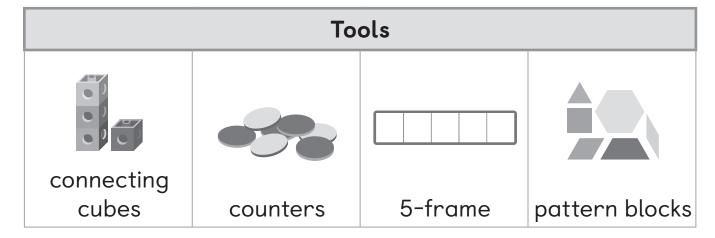
I noticed . . .

I counted . . .

I clicked on . . .

Getting the Number

Use with Problem 2.



Word bank				
English	different	group	number	same
Español	diferente	grupo	número	igual

We both . . .

I showed the number $\frac{1}{\text{(number)}}$ using $\frac{1}{\text{(tool)}}$.

My partner and I both showed a group of $\frac{}{(number)}$.

I used $\frac{1}{(tool)}$ to show my group and my partner used $\frac{1}{(tool)}$.

Skye's Polka Dot Shoes

Use with Problem 1.

The groups are the same because . . .

The groups are different because . . .

I noticed . . .

I counted . . .

(Yes/No), groups (can/cannot) show the same number but use different arrangements.

Word bank			
English	Español		
arrangement	disposición		
different	diferente		
group	grupo		
number	número		
polka dot	lunares		
same	igual		
shoe	zapato		

Date











Are There Enough? (Part 1)

Use with Problem 2.

Enou	No	ot e	nough	
10 54		0		
60 03				

I know there _____ enough because . . . (are/are not)

I showed that there ______ (are/are not)

We can figure out if there is enough by . . .

Word bank		
English	Español	
different	diferente	
enough	suficiente	
fruit	fruta	
group	grupo	
lunchbox	lonchera	
piece	pieza	
same	igual	

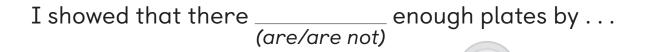
Are There Enough? (Part 2)

Use with Problem 1.

Word bank					
English different enough group person same					
Español	diferente	suficiente	grupo	persona	mismo



I know there _____ enough plates because . . . (are/are not)



We can figure out if there are enough plates by . . .

How Many Are There?

Use with Problem 2.

First, I will . . .

Next, I will . . .

The tool I want to use is . . .

There are _____ objects in _____

my bag.

I figured out how many there were by . . .

Word bank			
English	Español		
count	contar		
group	grupo		
number	número		
object	objeto		
tool	herramienta		

Building With Cubes

Use with Problem 2.



There were _____ cubes in my bag. (number)



The number of cubes is

(the same/different)

I built . . .

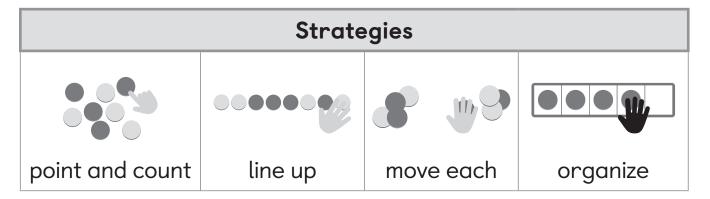
Word bank			
English	Español		
build	construir		
count	contar		
different	diferente		
group	grupo		
number	número		
same	igual		

The number of cubes

_ change because . . .

How Many Are There?

Use with Problem 1.



I need to ...



There were _____ objects in my bag. (number)

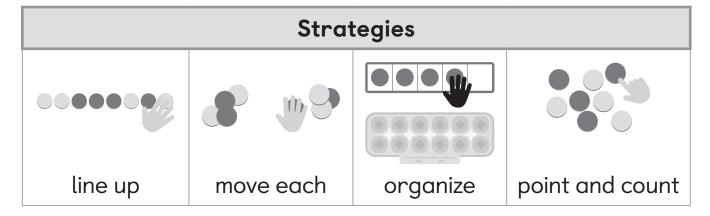
I can ...

The strategy I used was . . .

Word bank		
English Españo		
count	contar	
group	grupo	
number	número	
object	objeto	

Organizing Library Books

Use with Problem 1.



I need to ...





There were ______ books in my bag. (number)

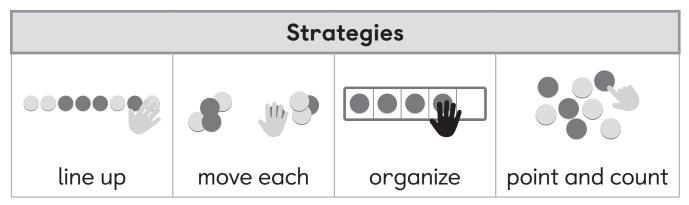
I can ...

The strategy I used was . . .

Word bank		
English	Español	
count	contar	
egg carton	cartón de huevos	
group	grupo	
number	número	

How Many Are There?

Use with Problem 1.



First I will . . .

Next I will . . .

There are $\frac{}{(number)}$ objects in my bag.

I know there are _____ objects (number) because . . .

I represented how many by . . .

Word bank		
English	Español	
count	contar	
drawing	dibujo	
group	grupo	
number	número	
school bus	autobús escolar	

Sharing Our Creations

Use with Problem 2.

Tools				
	connecting		pattern	
5-frame	cubes	counters	pattern blocks	solid shapes

How many $\underline{\hspace{1cm}}$ did you use?

How did you . . .?

Why did you use . . .?

I like how you . . .

Word bank			
English Español			
color	color		
creation	creación		
number	número		
use	usar		

Ways to be a Mathematician Formas de ser matemático/ matemática

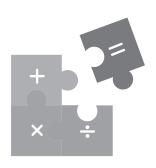
I can take my time to think about a challenging problem before trying to solve it.

Puedo tomarme mi tiempo para pensar en un problema difícil antes de intentar resolverlo.



2 I can use math to help solve real-world problems.

Puedo usar las matemáticas para ayudar a resolver problemas del mundo real.



Questions and Sentence Frames

Why did you choose this statement?

Did you choose any others? Why or why not?

How did you use this thinking during the Activity?

Can you tell me more?

I chose this statement because . . .

I also chose _____ because . . .

In the Activity, I...

Math Fingers, Show and Say

Use with Problem 1.

I see _____ fingers. (number)

I know there are _____ fingers because . . . (number)

I figured out how many by . . .

1	2	3	4	5
•	•	4	W	*
one	two	three	four	five
6	7	8	9	10
W •	# 4	# 4	小 小	* *
six	seven	eight	nine	ten

Moving and Grooving

Use with Problem 1.



I counted _____ cubes. *(number)*



Now there are _____ cubes. *(number)*



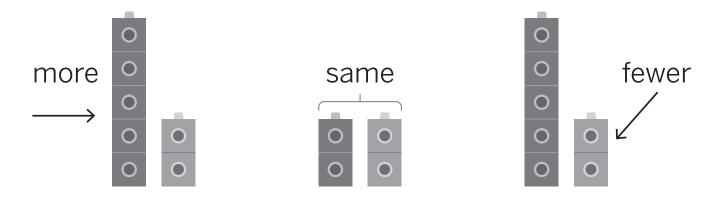
The cubes are ______.

(the same/different)

1	2	3	4	5
one	two	three	four	five
6	7	8	9	10
Six	seven	eight	nine	ten

Shake and Spill

Use with Problem 2.



I noticed there are _____ yellow counters.

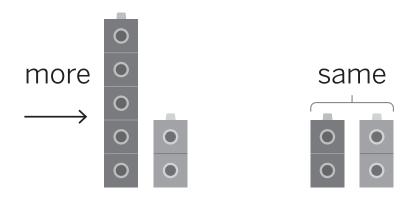
I noticed there are _____ red counters.

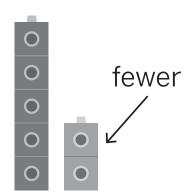
There are _____ red counters than yellow. (more/fewer)

I know they are ______ because . . . (more/fewer/the same)

Less, Same, More

Use with Problem 2.





The top box has ____ counters. (number)



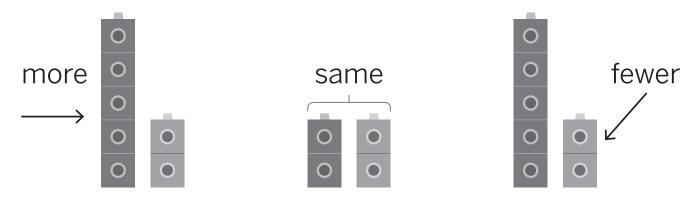
The box has fewer counters because . . .



The boxes are the same because . . .

Matching Mystery Bags

Use with Problem 1.



Bag _____ has ____ red cubes than yellow cubes. (A/B/C) (fewer/more)

Bag $\underline{\hspace{1cm}}$ has the same number of red and yellow cubes. *(A/B/C)*

I know bag $\underline{\hspace{1cm}}$ matches because . . . (A/B/C)

Counting Unorganized Groups

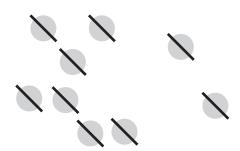
Use with Problems 2-5.







pointing and counting



crossing out dots





making groups and counting on putting counters on the dots



I counted _____ dots. (number)

I know there are _____ dots because I . . . (number)

Setting the Table

Use with Problems 1-4.

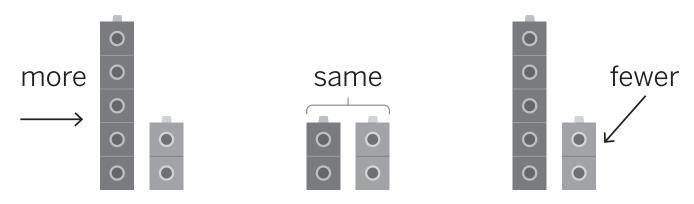
Objects			
bowl	cup	fork	knife
napkin	plate	spoon	straw

There are _____s than ____s. (more/fewer) (object 1) (object 2)

I know there are ______s than ____s (more/fewer) (object 1) (object 2) because . . .

Comparing Cards

Use with Problem 1.



I have _____ dots and that is _____ than ___ (number) (fewer/more/the same) my partner.

I know I have _____ than my partner (fewer/more/the same) because . . .

A Furry Feast

Use with Activity 1.

1	2	3	4	5
6	7	8	9	10
0 0 0 0 0	00000	0 0 0 0	00000	0 0 0 0 0

The top group has _____ and the bottom group (number) has ____. (number)

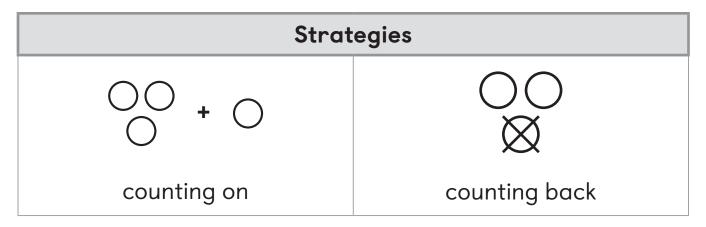
The $\underline{\hspace{1cm}}$ group has $\underline{\hspace{1cm}}$ and I $\underline{\hspace{1cm}}$

know because . . .

I compared the groups by \dots

Less, Same, More

Use with Problem 1.



Date .

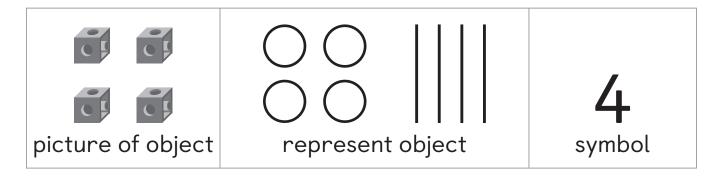
I drew ____ dots.

(number) is (less than/more than/the same as) (number)

The strategy I used to know it was _____ was . . . (less/more/the same)

Which Bag Is Which?

Use with Problem 1.

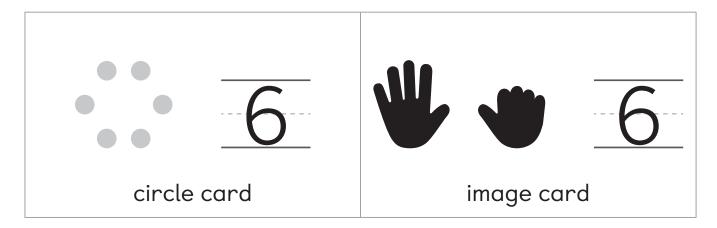


I represented the number of objects by ...

This symbol helps me remember how many by . . .

Different Groups, Same Number

Use with Problem 2.



The cards are ______ because . . . (the same/different)

I know this card goes here because . . .

Show That Number

Use with Problem 2.

I notice there are _____ objects in the group. (number)

Date

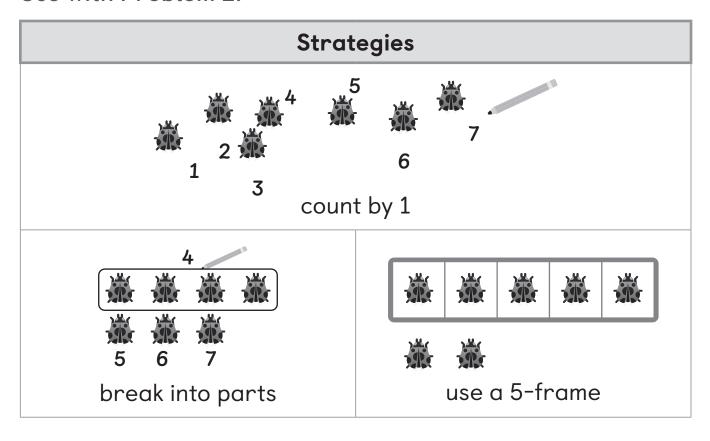
I wonder if all the groups have . . .

The groups are ______ because . . . (the same/different)

1	2	3	4	5
6	7 •••••	8	9	10 •••••

Math Libs

Use with Problem 2.



Date_

I will draw _____ objects. (number)

I used the _____ strategy to count. (strategy name)

Math Stories, How Many?

Use with Activity 2.

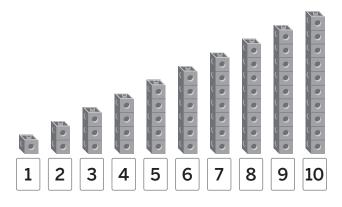
I see _____ (number) (objects)

How many _____ do you see? (objects)

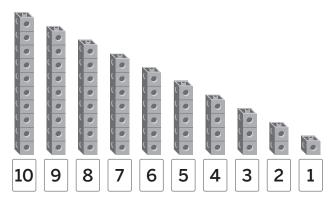
Objects		
کد	1	
bird	boat	
bucket	car	
dog	door	
house	people	
sun	towel	
Ta		
tree	umbrella	

Organizing Cooking Tools

Use with Problem 2.



counting on



counting back

I organized my tools by ______.

(counting on/counting back)

First I organized the _____ and then the ____

(cards/towers)

(cards/towers)



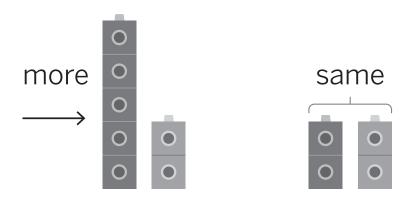


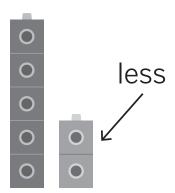




Comparing Game

Use with Problem 2.





1 less than _____ is _____ (number)

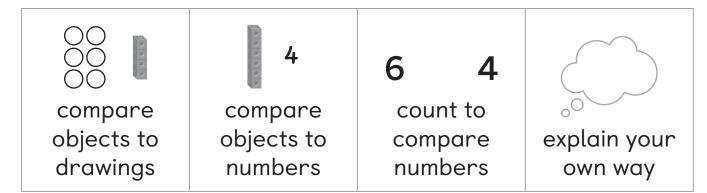
I know because . . .



Counting helped me because . . .

Gallery Tour: Different Representations

Use with Problem 2.



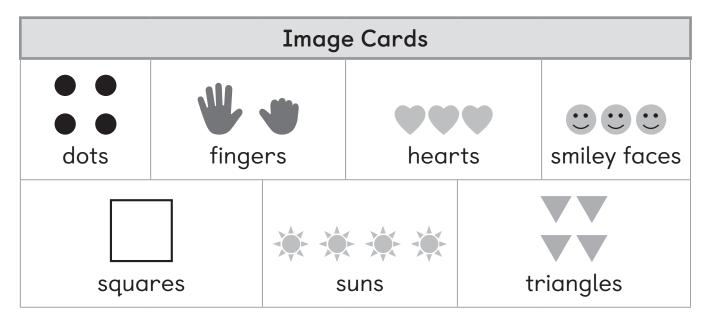
_____ is less than _____.
(number) (number)

_____ is more than _____.
(number) (number)

I know because . . .

Less, Same, More

Use with Problem 1.



is	less	than	•	
----	------	------	---	--

is more than

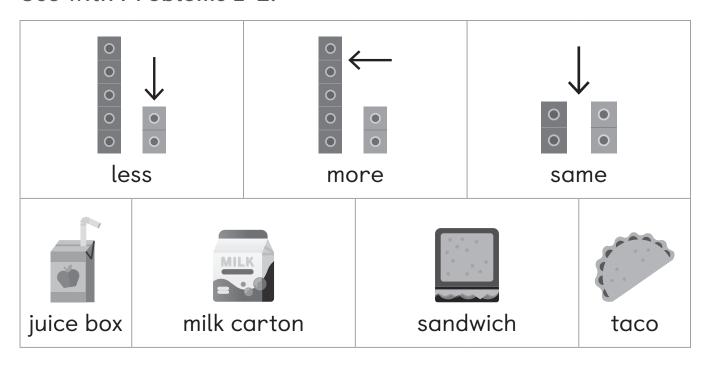
Word bank						
English	Español Exampl Ejempl					
less	menos					
more	más	○ ○ ○ ○ ○ ○				
same	mismo					

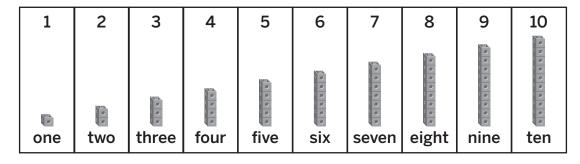
Name

Lesson 2.21 **Activity 1**

Which Number Is More?

Use with Problems 1-2.





There are more _____ than ____ because . . .

_____ is more than _____.

_____ is less than _____.

_____ is the same as _____.

Smoothie Celebration

Use with Problem 3.

Ingredients							
banana	blueberry	kiwi	mango	pineapple	strawberry		
<u>m</u>	ore o o o o		same		fewer		

_____ is more than _____.

_____ is less than _____.

_____ is the same as _____.

I used more _____ than my partner.

My partner used more $\underline{\hspace{1cm}}$ than I did. (ingredient)

Ways to be a Mathematician Formas de ser matemático/ matemática

I can take my time to think about a challenging problem and come up with a plan before trying to solve it.



Puedo tomarme mi tiempo para pensar en un problema difícil y elaborar un plan antes de intentar resolverlo.

2 I can see how ideas are connected and use patterns to help solve problems.



Puedo ver cómo se conectan las ideas y utilizar patrones para resolver problemas.

Questions and Sentence Frames

Why did you choose this statement?

Did you choose any others? Why or why not?

How did you use this thinking during the Activity?

Can you tell me more?

I chose this statement because . . .

I also chose _____ because . . .

In the Activity, I...

Date

Mystery Shape

Use with Problem 2.

Is your shape . . .

Name

	Yes 🚺	No P
colored?		
pointy?	\	
round?		
big?		
small?		

Shapes on a House

Use with Problem 5.

Parts of the house						
door	roof	window				

The shape has _____ lines. (description / number)

The shape matches the _____ on the house. (part of the house)

The shapes match because they both have . . .

Word bank						
Example Ejemplo		~~	across up and 7 down			
English	curved slanted		squiggly	straight		
Español	curvado	inclinado	ondulado	recta		

Alike and Different

Use with Problem 2.

My shape has _____ corners and ____ sides. (number)

They are the same because they both have . . .

They are different because . . .

	Word bank							
Example Ejemplo			→		~~	across up and J down		
English	corner	curved	side	slanted	squiggly	straight		
Español	esquina	curvado	lado	inclinado	ondulado	recta		

Sorting Shapes

Use with Problem 1.

The shape has _____ sides.

The shape has _____ vertices.

The shape _____ have curves. (does/does not)

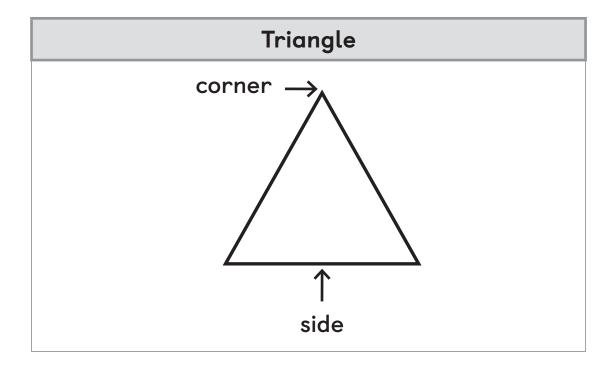
The shape is sorted into this group because . . .

The shape is not sorted into this group because . . .

Word bank						
English	curved	side	vertex			
Español	curvo	lado	vértice			

Sorting Triangles

Use with Problem 2.



The shape has _____ sides. (number)

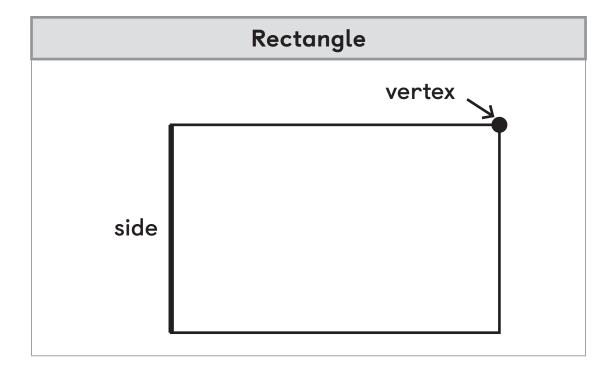
The shape has $\underline{\hspace{1cm}}$ corners.

The shape _____ a triangle because . . . (is / is not)

I sorted the shape here because . . .

Sorting Rectangles

Use with Problem 1.



The shape has _____ sides. (number)

The shape has _____ vertices. (number)

The shape _____ a rectangle because . . . (is / is not)

I sorted the shape here because . . .

Comparing Lengths of Rectangles

Use with Problem 2.

Word bank						
Example Ejemplo					up and down slanted	
English	corner	longer	side	shorter	straight line	
Español	esquina	más largo	lado	más corto	linea recta	

The shape has _____ sides. (describing words)

I can describe my shape as . . .

Sorting, Sorting, Sorting

Date

Use with Activity 1.

I notice . . .

I sorted my shape into this group because . . .

I did not sort my shape into this group because . . .

My shape belongs because . . .

Word bank						
Examples Ejemplos						
English	curved	corner	shape	side	sort	
Español	curvado	esquina	figuras	lado	clasificar	

Can You Draw It?

Use with Activity 2.

My shape has _____ sides.

My shape has ____ vertices.

My shape is _____ vertices.

My shape is _____ ibig/small.

The sides are _____ (description)

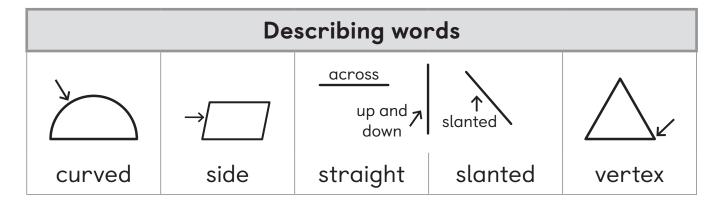
Word bank					
Examples Ejemplos	vertex 1				small
English	side	vertex	big	small	
Español	lado	vértice	grande	pequeño	
Examples Ejemplos	long short		acr slanted	up and down	
English	long	short	straight	slanted	
Español	largo	corto	derecho	inclinado	

Date

because . . .

School Shape Search

Use with Problems 1-5.



I found a . . .

It is in the shape of a $igtriangle$		O .
it is in the shape of a — i		 •

It has	corners.	It has		sides
(number)			(number)	

The lines are ______. (describing word)

Shapes				
circle	hexagon	rectangle	square	triangle

Coin Posters

Use with Problem 1.

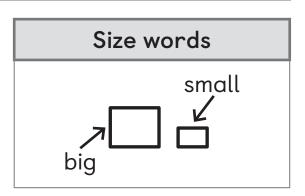
The coin is _____. (shape)

Shape words

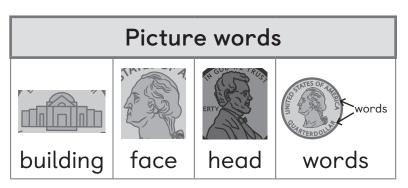
circle round



The coin is $\frac{}{(size)}$.

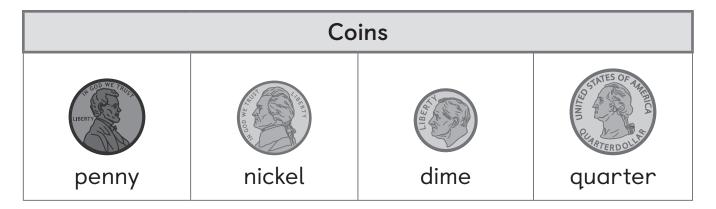


I see $\frac{}{(picture)}$ on the coin.



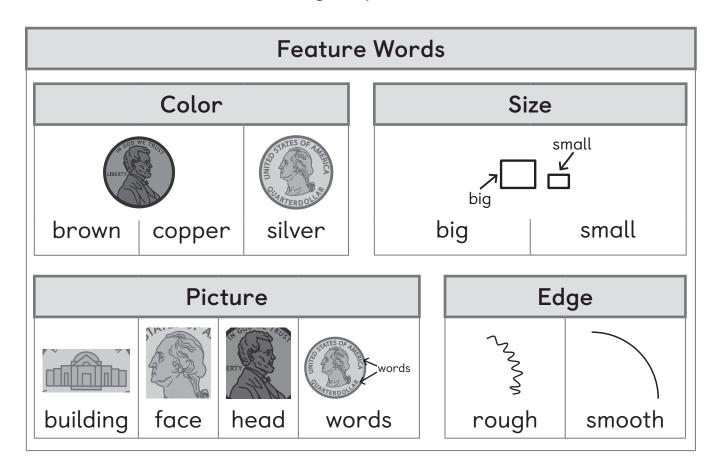
Coin Sort

Use with Problem 1.



I sorted my groups by $\frac{}{\textit{(feature)}}$.

This coin is sorted into this group because . . .

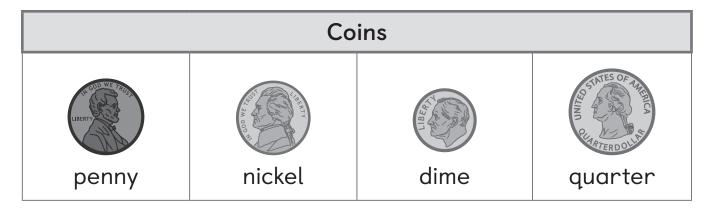


Name

Lesson 3.14 **Activity 2**

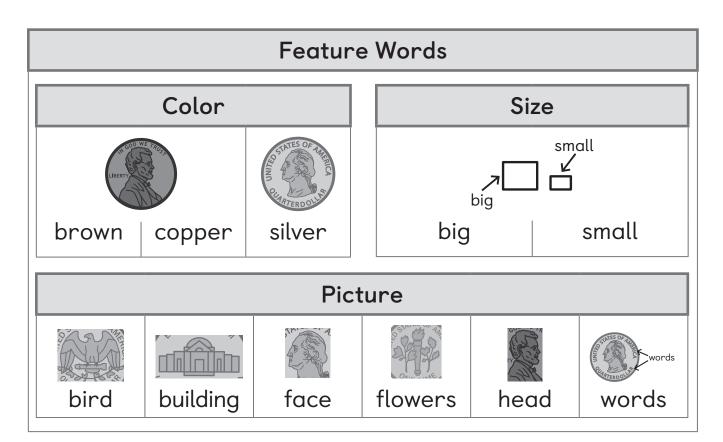
Mix and Mingle: Coin Card

Use with Problem 2.



My coin is a $\frac{}{(coin name)}$.

I know this coin is a $\frac{}{(coin name)}$ because . . .



Card Sort: Wants and Needs

Use with Problems 5-6.

This is a _______. (want/need)

I know it is a _____ because . . . (want/need)

Word bank		
English	Español	
need	necesidad	
want	deseo	

	Wants and Needs Cards			
bicycle	bread	corn	dog	
flowers	fruits and vegetables	guitar	house	
milk	paint	shirt	water	

Is This A Gift?

Use with Problems 2-6.

In the story . . .

The money received in the story is _____. (income/a gift)

Word bank		
English	Español	
income	ingresos	
gift	regalo	

I know it is _____ because . . . (income/a gift)

Pro	Problem 2		lem 3
lemonade	lemonade stand	envelope	
Problem 4		Prob	lem 5
lifeguard		dog table	
	Prob	lem 6	
card		colored	pencils

Job Skills

Use with Problems 2-3.

A job in our community is . . .

In this job, they have to $\frac{}{(skill)}$.

Word bank		
English Españo		
job	trabajo	
skills	habilidades	

Date

Ways to be a Mathematician Formas de ser matemático/ matemática

Date

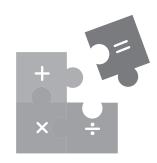
1 I can take my time to think about a challenging problem and come up with a plan before trying to solve it.

> Puedo tomarme mi tiempo para pensar en un problema difícil y elaborar un plan antes de intentar resolverlo.



2 I can use math to help solve real-world problems.

> Puedo usar las matemáticas para ayudar a resolver problemas del mundo real.



Questions and Sentence Frames

Why did you choose this statement?

Did you choose any others? Why or why not?

How did you use this thinking during the Activity?

Can you tell me more?

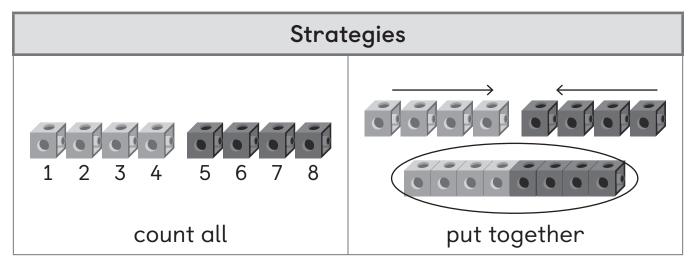
I chose this statement because . . .

I also chose _____ because . . .

In the Activity, I...

Putting Groups Together

Use with Problems 2-5.



I have _____ cubes.

My partner has _____ cubes.

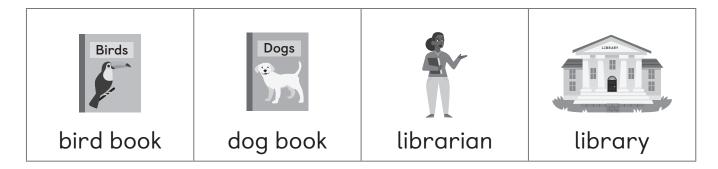
We have _____ cubes altogether.

I know we have _____ cubes because . . .

Word bank			
English	Español	Example	
altogether	en total		
cube	cubo		
group	grupo		
total	total		
tower	torre		

How Many Books?

Use with Problems 1-4.





There are _____ bird books.



There are _____ dog books.

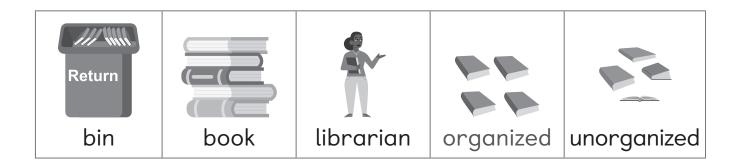
There are _____ books altogether.

I know the total is _____ because . . .

Word bank				
English	5-frame	altogether	count all	count on
Español	5 marcos	en total	contar todo	contar hacia adelante
Example			• • • • • • • • • • • • • • • • • • •	•3 ••• 2 456

What's the Total?

Use with Problems 1-4.



The groups are . . .

I found the total by . . .

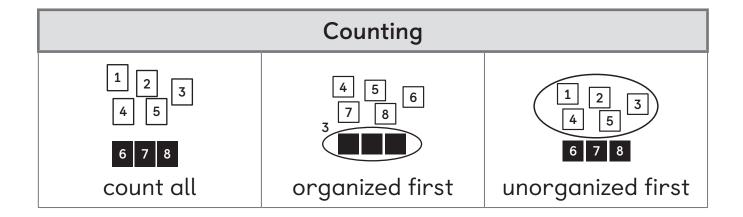
My partner found the total by . . .

It was the ______ . (same/different)

The order _____ matter ____ (does/does not)

when finding the total because . . .

Word bank		
Español		
contar		
resolver		
grupo		
total		

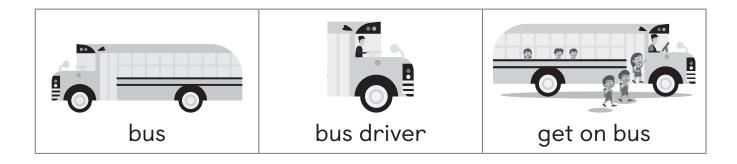


Lesson 4.05
Activity 1

Name _____

Adding Counters

Use with Problems 1-4.



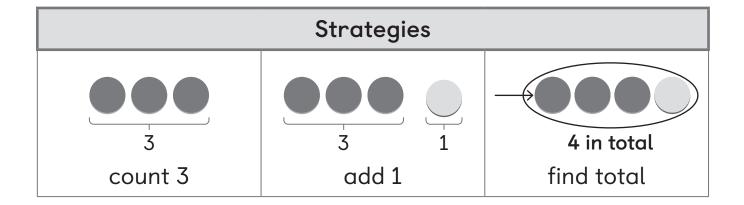
I have _____ counters.

I add _____ more counters.

There are _____ counters total.

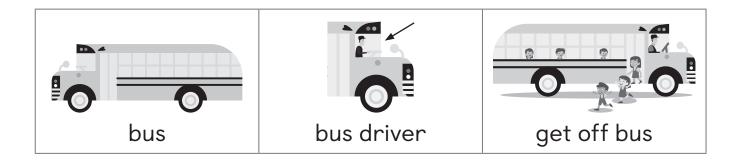
Adding counters means . . .

Word bank				
English	Español			
add	sumar			
count	contar			
counters	fichas			
group	grupo			
total	total			



Subtracting Counters

Use with Problems 1-4.



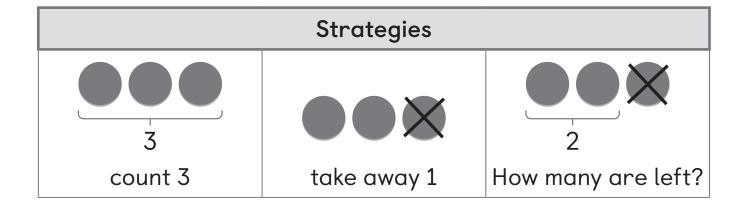
I have _____ counters.

I took away _____ counter(s).

There is/are _____ counter(s) left.

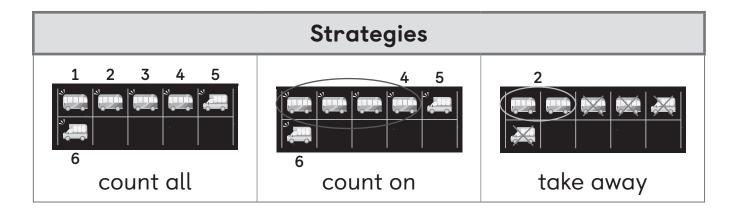
Subtracting counters means . . .

Word bank				
English	Español			
count	contar			
counters	fichas			
left	izquierda			
subtract	sustraer			
take away	quitar			



Adding Buses

Use with Activities 1 and 2.



Word bank					
English	total				
Español	sumar	sustraer	total		

There are _____ buses.

I know because _____ and ____ is ____.

I found the total by . . .

Adding means . . .

There are _____ buses left.

I know because _____ take away ____ is _____.

Subtracting means . . .

What Is Happening?

Use with Problem 1.



Date

I see _____ in the picture.

The cans could be . . .

There are _____ cans.

Adding means . . .

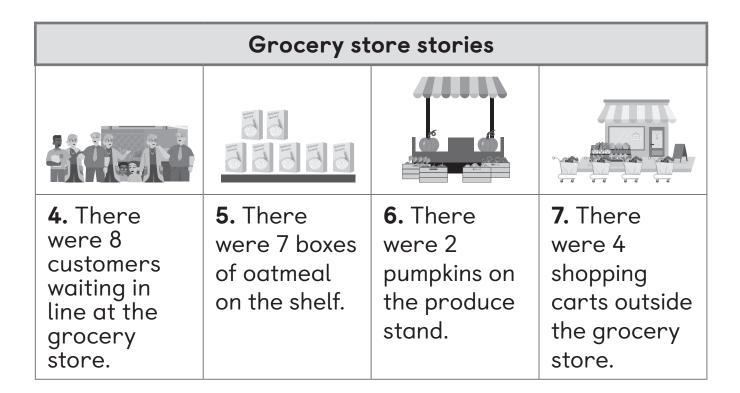
Word bank					
English	Español	Example			
add	sumar	2 2 4 total			
subtract	sustraer	00000 00×			

Story problem There are _____ cans in the bag. Then the grocer . . . Now there are _____ cans in the bag.

What Happens Next?

Use with Problems 4-7.

Word bank						
English add to finish ne		next	story	subtract	take from	
Español	añadir	terminar	siguiente	historia	sustraer	quitar



I can use _____ counters to show . . .

Next, I can _____ shopping carts.

I can use my counters to show . . .

Asking Math Questions

Use with Problems 1-2.

Word bank						
Example	Dalicious Oximeal	CORN	?	33333		
English	box of cereal	can of corn	question	shelf	shopping cart	
Español	caja de cereal	lata de maíz	pregunta	estante	carrito de compras	

Math stories





- 1. There were 10 boxes of cereal on the shelf. A person took 4 boxes of cereal from the shelf to buy them.
- 2. A customer put 6 cans of corn in the cart. Then the customer put 2 more cans of corn in the cart.

How many _____ do they have?

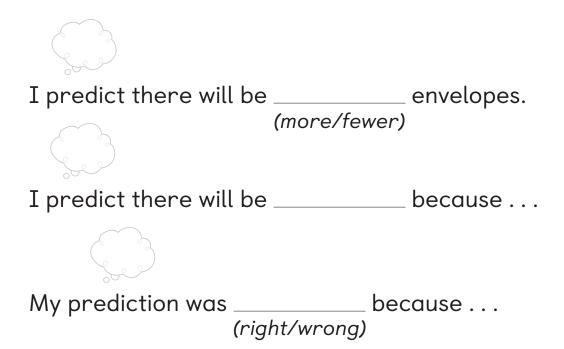
How many _____ are ...?

How many _____ are left?

Use with Problems 1 and 2.

Word bank						
Example		fewer		more o	I think	
English	envelope	fewer/ less	mail carrier	more	predict	
Español	sobre	menos	cartero	más	predecir	

Date.



Story Problem Drawings

Use with Problem 2.

Story problem drawings examples					
		••• ••			
	••• ••	• •		••• ••	
1 group (unorganized)	2 groups (organized)	different	circle	same	

There are _____ in the story problem.



Priya used _____ to show envelopes.



Shawn used _____ to show envelopes.

The drawings are the same because . . .

The drawings are different because . . .

Trash Collection Day

Use with Problem 2.

Word bank				
Example	43			⊗⊗⊗ O left
English	bag	dumpster	sanitation worker	zero
Español	bolsa	contenedor de basura	trabajador de saneamiento	cero

There are _____ in the story problem.



I can draw _____ to show the trash bags.

My drawing shows that . . .



There are _____ bags left in the dumpster.

Lesson 4.14 **Activity 1**

Creating Our Story Problems

Use with Problems 1 and 2.







boxes	envelope	letters
cajas	sobre	cartas

My story problem is about . . .



My story problem starts with . . .

Then...

How many . . .

My drawing shows that . . .

Ducks in a Pond

Use with Problem 1.

Name

Word bank			
Example		Y	Y Y
English	duck	pond	swim
Español	pato	estanque	nadar



There are _____ ducks in the story problem.



Then _____ ducks . . .

My drawing shows that . . .

_____ and _____ is _____.

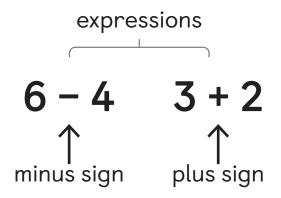


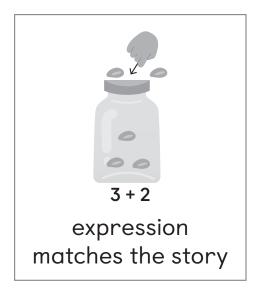


There are _____ ducks in the pond.

Which Expression?

Use with Problems 3-6.





The story problem is asking . . .

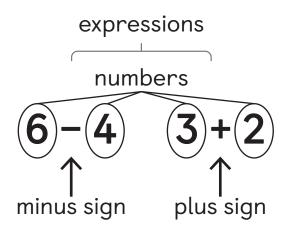
The expressions . . .

The expression _____ matches the story problem.

I know this expression matches because . . .

Matching Drawings With Expressions

Use with Activities 1 and 2.



The drawing shows . . .

there are _____ red circles.

there are _____ yellow circles.

____circles are crossed out.

The expression shows . . .

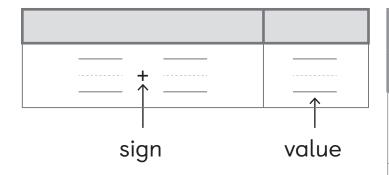
It is a(n) _____ expression.

(addition/subtraction)

 $___$ matches the drawing because \dots

Finding the Value

Use with Problems 1-6.



Word bank		
English Españo		
minus sign	signo de menos	
number	número	
plus sign	signo de más	
value	valor	

The expression . . .

The numbers are _____ and _____.

It is a(n) _____ expression. (addition/subtraction)

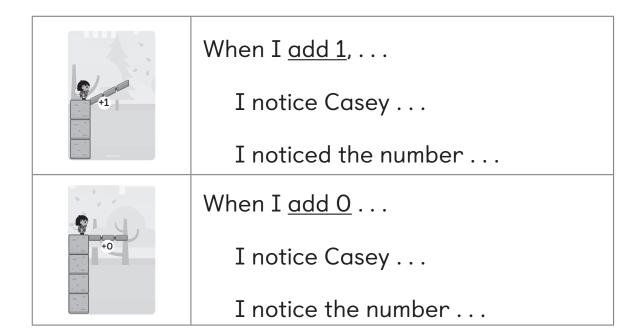
I can _____ to find the value.

I used _____ to show my thinking.

The value is _____.

Adding 0 and 1

Use with Activities 1 and 2.



I wonder what happens if I...

Choose Your Expression

Use with Activities 1 and 2.

Express	sion	Value

Story problem			
In the beginning, there were			
Then			
(+) more came	(-) went away		
How many are there?			

Ways to be a Mathematician Formas de ser matemático/ matemática

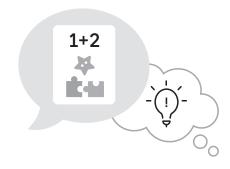
I can take my time to think about a challenging problem and come up with a plan before trying to solve it.



Puedo tomarme mi tiempo para pensar sobre un problema difícil y elaborar un plan antes de intentar resolverlo.

2 I can share my mathematical ideas clearly and in more than one way.

Puedo compartir mis ideas matemáticas con claridad y de más de una manera.



Questions and Sentence Frames

Why did you choose this statement?

Did you choose any others? Why or why not?

How did you use this thinking during the Activity?

Can you tell me more?

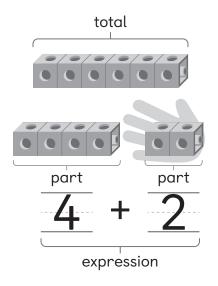
I chose this statement because . . .

I also chose because . . .

In the Activity, I...

6 Connecting Cubes

Use with Problems 3-4.



Word bank				
English	Español	Example		
add	sumar	2000 0000 3		
break apart	descomponer			
cube	cubo			
tower	torre			

I broke my tower into _____ and ____ cubes.

The expression is . . .



The total _____ change when you break it apart. (does/does not)

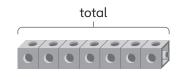
I _____ break it up in another way.



____ and ____ cubes.

More Than 1 Way

Use with Problems 3-4.



one way	another way
3 + 4	2 + 5

Word bank				
English	Español	Example		
break apart	descomponer			
part	parte	part		



I can use _____ to break apart the number by . . . (math tool)



I can break apart the number by . . .



Another way to break apart the number is . . .

The expression is . . .

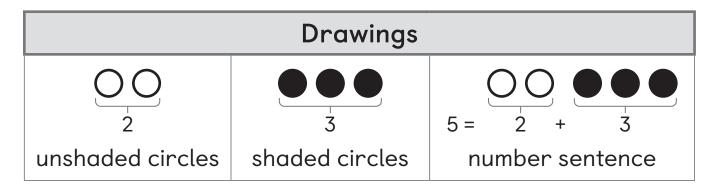
The total _____ change because . . . (does/does not)

Date

Lesson 5.04
Activity 2

Matching Drawings With Number Sentences

Use with Problem 3.



The drawing shows . . .

_____ shaded circles and _____ unshaded circles.

The number sentence shows . . .

and circles in each group.

There are _____ total circles.

_____ matches the drawing because . . . (number sentence)

Ollie's Friends

Use with Activity 2.

Word bank					
English	add	number sentence	expression	pattern	total
Español	sumar	enunciado numérico	expresión	patrón	total

I can start to break apart the number by . . .

The patterns I notice are . . .

I can _____ to the **first** part.

I can ____ from the **second** part.

The patterns are the same because . . .

The first number gets _____, and the second number gets _____.

Pawprint Clues

Use with Problem 2.





The class found 8 pawprints on the playground.





Some of the pawprints were in the garden



and some were in the sandbox.





I can _____ to show pawprints in the garden.





I can $_{----}$ to show pawprints in the sandbox.

My drawing matches the story because . . .

_____ matches the story because . . . (number sentence)

Word bank			
Example 5 = 3 + 2			
English	number sentence		
Español	enunciado numérico		

Harry's Sweet Treats

Use with Problem 1.







Harry the Hamster found 6 apples in the cafeteria.





Some were red and some were yellow.

Solutions			
6 = 4 + 2	6 = 3 + 3	6 = 5 + 1	

I notice the different answers . . .

They match the story problem because . . .

A story problem can have different answers because . . .

Word bank					
Example	5 = 3 + 2				
English	number sentence				
Español	enunciado numérico				

Gathering Grapes

Use with Problem 3.









Harry the Hamster spilled 7 grapes by the librarian's desk.





Some grapes were green and some were purple.

I can show the story problem by . . .

I can show the different answers by . . .





green grapes and _____ purple grapes.

I notice the different answers . . .

The pattern I notice is . . .

Word bank						
Example	5 = 3 + 2					
English	number sentence					
Español	enunciado numérico					

Comparing Story Problems

Use with Problems 5-6.

Problem 5



Harry spilled 6 bottles of paint.



Some were blue.



The rest were red.

Problem 6



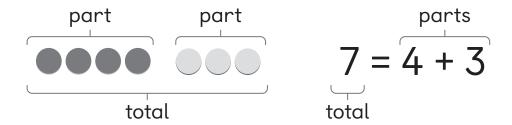
Harry spilled some bottles of of paint in the supply closet.





4 bottles of paint were blue and 2 bottles were red.

Comparing Story Problems (continued)



We _____ the parts in Problem _____. (know/don't know) (4/5)

We _____ the total in Problem _____ (know/don't know) (4/5)

Problem _____ has ____ answer(s) because . . . (4 or 5) (one/more than 1)

All the Story Problems

Use with Problem 1.

Word bank								
Example	ample S							
English	hamster	nut	peanut	shell	walnut			
Español	hámster	nuez	maní	cáscara de nuez	nuez de nogal			

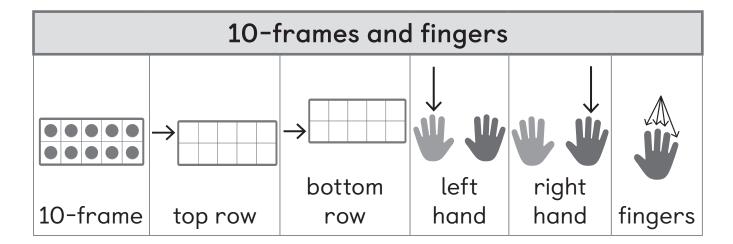
I notice the story problem . . .

I notice the drawing and number sentence . . .

Story problem _____ matches ____ because . . . (A/B/C/D) (number sentence)

Numbers on Fingers and 10-Frames

Use with Problems 5-9.



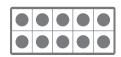


The picture shows _____ fingers.



I can show the number in the 10-frame by \dots





Fingers and 10-frames are similar because . . .

Showing Number Sentences With Fingers

Use with Problems 3-7.

Word bank								
Example	10 = 6 + 4		10 = 6 + 4	10 = 6 + 4				
English	number sentence	fingers	part	total				
Español	enunciado numérico	dedos	parte	total				

The number sentences show . . .



I can use fingers to show the number sentence by . . .



The fingers match the number sentences because . . .



Fingers help us show parts of 10 because . . .

Math Fingers

Use with Activity 2.

Strategies 8...9, 10 count up to 10 Strategies 3 + 2 = 5 count fingers that are down count up to 10



I can use fingers to show the number by . . .



My partner is holding up _____ fingers.



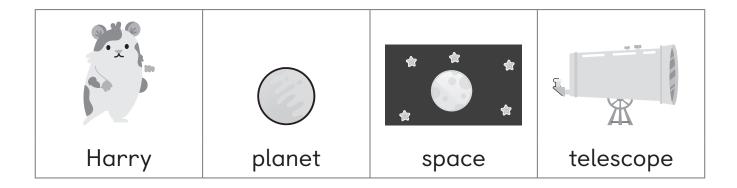
We need _____ fingers to make 10.

The number sentence is 10 = _____ + ____.

Telescope Time!

Use with Activity 1.

Word bank							
English	number sentence	part	pattern	total			
Español	enunciado numérico	parte	patrón	total			



The number sentences are ______ because . . . (the same/different)

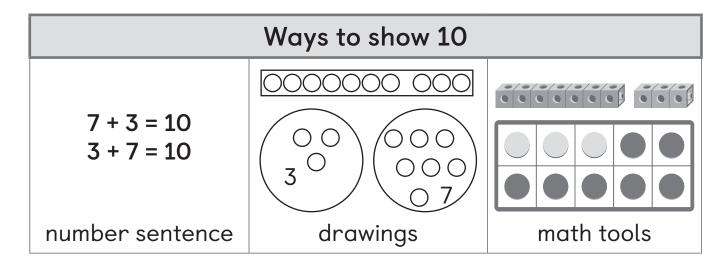
The pattern I notice is . . .

1 part gets ______, the other part gets _____. (larger/smaller)

Gallery Tour: Ways to Make 10

Use with Problem 2.

Word bank							
English number sentence order part total							
Español	enunciado numérico	orden	parte	total			



They made 10 by ...

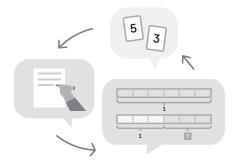
They showed it by . . .

The ways are ______ because . . . (the same/different)

Ways to be a Mathematician Formas de ser matemático/ matemática

1 I can create representations to share and organize my mathematical ideas.

Puedo crear representaciones para compartir y organizar mis ideas matemáticas.



2 I can see how ideas are connected and use patterns to help solve problems.

Puedo ver cómo se conectan las ideas y utilizar patrones para ayudar a resolver problemas.



Questions and Sentence Frames

Why did you choose this statement?

Did you choose any others? Why or why not?

How did you use this thinking during the Activity?

Can you tell me more?

I chose this statement because . . .

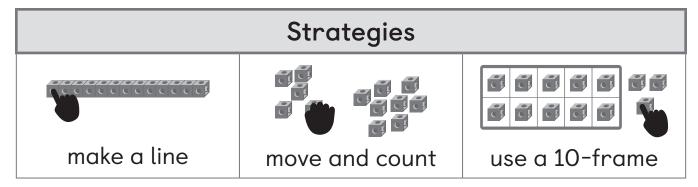
I also chose because . . .

In the Activity, I...

Date_

Different Ways to Keep Track

Use with Problems 2.





I counted ____ cubes. *(number)*





I kept track of counting the cubes by ...

I can also use _____ by . . . (strategy)



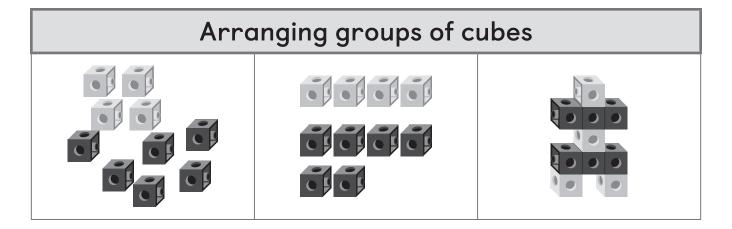
I made sure I counted each cube 1 time by \dots

	Teen numbers									
	11	12	13	14	15	16	17	18	19	20
1 1	leven	twelve	thirteen	fourteen	fifteen	sixteen	seventeen	eighteen	nineteen	twenty

Counting Carefully With Friends

Date

Use with Activities 1 and 2.



There are _____ cubes altogether.

I used _____ to figure it out. (strategy)

I think all the students can be right because . . .

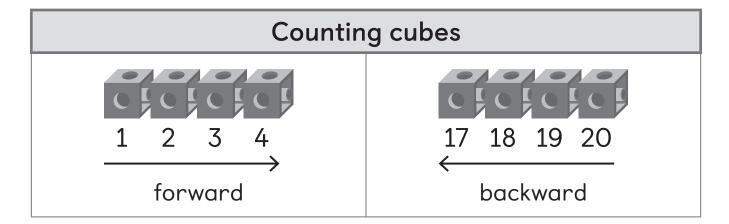
I do not think all the students can be right because \dots

	Teen numbers								
11	12	13	14	15	16	17	18	19	20
eleven	twelve	thirteen	fourteen	fifteen	sixteen	seventeen	eighteen	nineteen	twenty

Activity 1

Counting Water Bottles

Use with Problem 1.





I started counting forward by . . .



I started counting backward by . . .

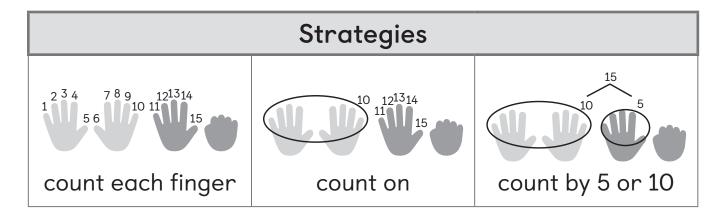
I notice...

Counting forward and backward are the same because . . .

Counting forward and backward are different because...

Fingers to 10-Frames

Use with Problems 2-5.



I see _____ on the hands.

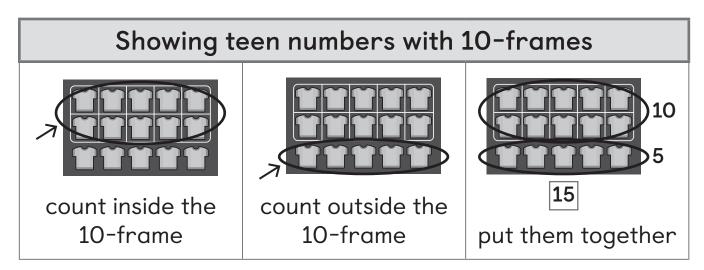
I used _____ to count because . . . (strategy)

I showed the same number on the 10-frame by \dots

I know this is the same number because . . .

Matching the Ticket

Use with Activity 2.



There are _____ jerseys.

I can show the written number by putting \dots

inside the 10-frame.

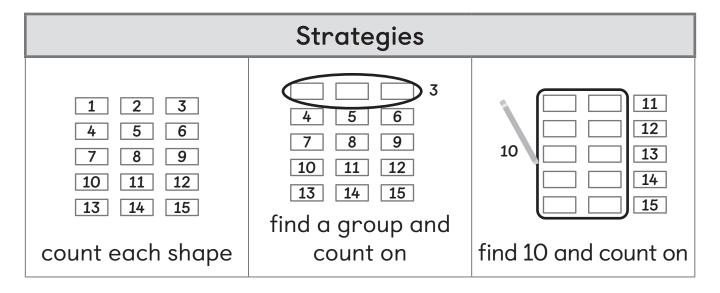
__ outside the 10-frame.

It shows _____ because . . . (written number)

I can show a teen number in a 10-frame by \dots

Fans in the Stands

Use with Problems 5-8.



There are _____ shapes.

I found the number of shapes by . . .

Another way I can find the number of shapes is . . .

One More and One Less With Numbers

Use with Problems 7 and 8.

Word bank									
Example	17 18 19 20 (1 2 3 4 ———————————————————————————————————	10) <u>11</u> , 12	10, <u>11</u> , <u>12</u>)	less				
English	backward	forward	before	after	less	more			
Español	hacia atrás	hacia delante	antes	después	menos	more			

10, <u>11</u>, <u>12)</u> _____ is 1 more than _____ because . . .

(10), 11, 12 _____ is 1 less than _____ because . . .

The order helps you figure out 1 more or 1 less because . . .

Create and Compare

Use with Activities 1 and 2.

Word bank							
Example	your group Licition your partner's group	4	fewer		cicicici same		
English	compare	create	fewer more		same		
Español	comparar	crear	menos	más	mismo		

I created my group by . . .

My partner has ______. (number)

I have _____ objects than you. *(more, fewer, same)*

We compared our groups by . . .

Create More, Fewer, and Same

Use with Activities 1 and 2.

Word bank							
Example	cicicician, i	fewer		cicicici same	cicici Mi		
English	add	fewer more		same	take away		
Español	sumar	menos	más	mismo	quitar		

I can show the same number by . . .

I can show more objects by . . .

I can show fewer objects by . . .

Different Ways to Keep Track

Use with Activities 1 and 2.

Word bank					
Example	10, <u>11</u> , 12)	10 , <u>11</u> , 12	12, 13, 14, 15	less	ofolol
English	after	before	count	less	more
Español	después	antes	contar	menos	más

I drew		and		
	(number)		(number)	

I can compare the numbers by \dots

is more than (number)		because (number)	
	is less than _	b	ecause

- ---

Date

Ordering Numbers

Use with Activity 1.

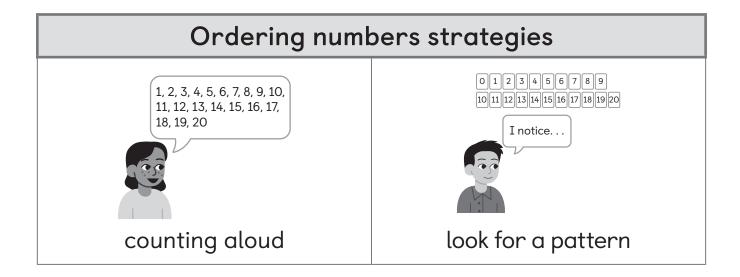
Word bank					
English	aloud	count	number	order	pattern
Español	en voz alta	contar	número	orden	patrón

I started with . . .

The next numbers are . . .

I put the teen numbers in order by . . .

The pattern I noticed is . . .



Ways to be a Mathematician Formas de ser matemático/ matemática

Date

1 I can take my time to think about a challenging problem and come up with a plan before trying to solve it.

Puedo tomarme mi tiempo para pensar en un problema difícil y elaborar un plan antes de intentar resolverlo.



I can see how ideas are connected and use patterns to help solve problems.

Puedo ver cómo se conectan las ideas y utilizar patrones para resolver problemas.



Questions and Sentence Frames

Why did you choose this statement?

Did you choose any others? Why or why not?

How did you use this thinking during the Activity?

Can you tell me more?

I chose this statement because . . .

I also chose _____ because . . .

In the Activity, I...

Solid Shape Search

Use with Activities 1 and 2.

Word bank				
Example Ejemplo				
English	flat shape	solid shape		
Español	figura plana	cuerpo geométrico		

Describing solid shapes						
		—			across up and 7 down	
corner	curved	flat	pointy	round	straight	slanted



The solid shape . . .



The _____ matches my solid shape. (object)



My object matches my solid shape because . . .

Sorting Solid Shapes

Use with Problem 3.

Word bank						
Example Ejemplo		circle faces no circle faces		Jan San San San San San San San San San S		
English	belong	category	edge	face	sort	vertices
Español	pertenecer	categoría	lado	cara	clasificar	vértices

Describing Solid Shapes							
		—	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			across up and 7 down	
corner	curved	flat	pointy	round	roll	straight	slanted



This shape belongs in the group that can roll because . . .



This shape belongs in the group that can't roll because . . .

The shapes in the group are similar because . . .

Finding Solid Shapes

Use with Problem 2.

Word bank					
Example Ejemplo		T M			
English	cone	cube	cylinder	solid shape	sphere
Español	cono	cubo	cilindro	cuerpo geométrico	esfera

The shape looks like a _____.



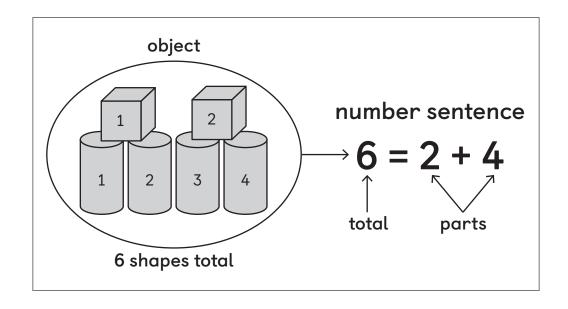
I can find this shape . . .

We can call this shape a _____



Matching Number Sentences With Objects

Use with Problem 1.



I notice the number sentence . . .

I notice the object . . .

The total is _____.

The parts are _____ and ____.

The number sentence matches the object because . . .

The object matches the number sentence because . . .

Stories About Subtracting

Use with Problems 3-4.



Mr. Guzman was so excited to have his shelf fixed that he put







10 books on the shelf for his neighbors

to borrow.

Story Problem

In the beginning, there were . . .

Then _____ were borrowed. (-)

How many _____ are there?

take away

number left

Comparing Boxes and Bags

Use with Problem 1.

Word bank						
Example Ejemplo						
English	bag	heavier	lift	lighter	weight	
Español	bolsa	más pesado	levantar	más liviano	peso	



Bag _____ is **heavier** than Bag _____.



It is **harder** to lift Bag _____.



Bag _____ is lighter than Bag _____.



It is **easier** to lift Bag ______.

River's Bird Feeder

Use with Problem 1.

Word bank					
Example Ejemplo		less	more		I think
English	container	less	more	pour	predict
Español	recipiente	menos	más	verter	predecir

Comparing Containers				
bigger smaller	taller shorter	₩ider		
bigger or smaller	taller or shorter	wider		



Container ____ can hold more water because . . .



Container ____ can hold less water because . . .

Two Objects

Use with Problems 1-3.

Which one is longer?

longer



I know this because . . .

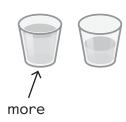
Which one is heavier?

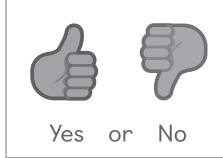


Yes or No

I know this because . . .

Which one can hold more water?





I know this because . . .

Face Shapes

Use with Activity 1.

Word bank						
Example Ejemplo	circle faces no circle faces		3			
English	category	cube	face	rectangle	square	triangle
Español	categoría	cubo	cara	rectángulo	cuadro	triángulo

I notice the shape . . .

This shape belongs in _____



I know the shape belongs in the "some triangle faces" category because . . .



I know the shape belongs in the "no triangle faces" category because . . .

Data in a Real-Object Graph

Use with Problem 2.

Word bank					
Example Ejemplo		circle faces no circle faces	circle faces no circle faces		
English	data	category	real-object graph	sort	
Español	datos	categoría	gráfico de objetos reales	clasificar	

8	or	-30
88		000

I can organize the data by . . .





The data belongs _____ in the real-object graph.



One thing that is true about the data is . . .



There are _____ connecting cubes.



There are _____ counters.



There are _____ connecting cubes than counters. (more or less)

Creating Graphs With Pictures

Use with Problem 2.

Word bank				
Example Ejemplo	or or	What We Drink	circle faces no circle faces	
English	data	picture graph	real-object graph	
Español	datos	gráfico de imágenes	gráfico de objetos reales	

Date

What We Drink

I can show triangles in my picture graph by . . .

I will draw _____ triangles.

I can show circles in my picture graph by . . .

I will draw _____ circles.

What We Drink

I can show squares in my picture graph by . . .

I will draw _____ squares.

Data in a Picture Graph

Use with Problem 1.

Word bank				
Example Ejemplo	or or	What We Drink	circle faces no circle faces	
English	data	picture graph	real-object graph	
Español	datos	gráfico de imágenes	gráfico de objetos reales	

What We Drink

I notice that the picture graph . . .

What We Drink

I can count _____ in the picture graph.

One thing that is true about the data is ...

There are _____ circles.

There are _____ squares.

There are _____ triangles.

I can count _____ to show it is true.

What Should River Build?

Use with Problems 1-2.

Word bank				
Example Ejemplo		circle faces no circle faces	What We Drink	
English	data	category	picture graph	
Español	datos	categoría	gráfico de imágenes	

What We Drink

I notice the picture graph . . .



There are _____ votes for the bookshelf.



There are _____ votes for the fence.

I know there are _____ votes altogether because . . .

My number sentence shows...