Amplify Desmos Math CALIFORNIA

Grade 4

Math Language Development Resources

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Vocabulary Cards, Unit 1

Directions: Make enough copies so that each student receives one card for each term. Pre-cut the cards and distribute them during the lesson(s) in which the term is introduced.

common multiple

A number that is a multiple of both of two given numbers.

Vocabulary Cards, Unit 1 · Lesson 4

composite number

A number that has more than one factor pair.

Factor pairs of 8: 1 and 8, 2 and 4

8 is a composite number.

Vocabulary Cards, Unit 1 · Lesson 7

multiple

The result of multiplying a number by a whole number.

3 × 4 = 12

12 is a multiple of 3.

Vocabulary Cards, Unit 1 · Lesson 4

prime number

A number that has only one factor pair.

Factor pairs of 7: 1 and 7

7 is a prime number.

Vocabulary Cards, Unit 1 · Lesson 7

common multiple

A number that is a multiple of both of two given numbers.

Vocabulary Cards, Unit 1 · Lesson 4

composite number

A number that has more than one factor pair.

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A number that has only one factor pair.

Factor pairs of 7: 1 and 7

7 is a prime number.

Vocabulary Cards, Unit 1 · Lesson 7

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Ways to be a Mathematician

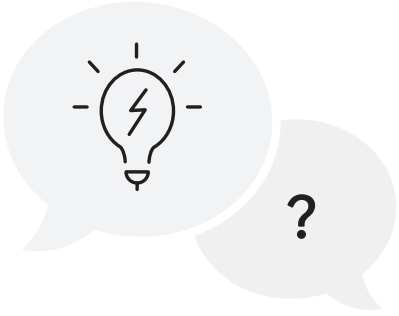
Formas de ser matemático/matemática

1 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.

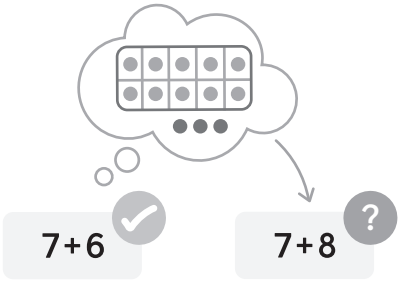
2 I can explain why my thinking makes sense and understand the thinking of others.

Puedo explicar por qué mi forma de pensar tiene sentido y entender el pensamiento de los demás.



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

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



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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 . . .

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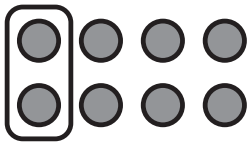
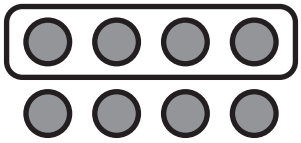
Missing Steps

Use with Problems 1–4.

Describing patterns	
 column	 row

Word bank	
English	**Español**
expression	expresión
grow	crecer
pattern	patrón
step	paso

I notice that the pattern . . .

In Step _____, there are _____ rows of _____ columns.

The pattern is growing by . . .

Step 3 will have _____ rows of ____ columns.

Step 5 will have _____ rows of ____ columns.

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Double Plus One

Use with Problems 7 and 12.

The numbers on the _____ side of the table are _____.
(left/right) *(even/odd)*

The numbers I recorded are _____ because . . .
(even/odd)

When you double a number . . .

When you add 1 to a doubled number . . .

The pattern of numbers is . . .

Word bank					
English	column	double	even	multiply	odd
Español	columna	doble	par	multiplicar	impar

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Exploring Multiples

Use with Problem 8.

common multiple
múltiplo común

Definition

A number that is a multiple of both of two given numbers.

Characteristics

- can be a very large number
- always includes the product of the two given numbers

Example

8 is a common multiple of 2 and 4.

Non-Example

5 is **not** a common multiple of 2 and 3

Common multiples are . . .

_____ and _____ have more common multiples than _____ and _____.

I think this is because . . .

Word bank		
English	more	multiply
Español	más	multiplicar

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More Multiples

Use with Activity 2.

I decided that numbers were multiples if . . .

I used the grid to . . .

58 _____ a multiple of 4 because . . .
(is/is not)

Word bank						
English	area	common	grid	multiple	multiply	row
Español	área	común	cuadrícula	múltiplo	multiplicar	fila

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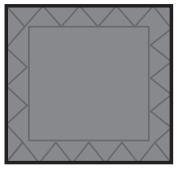
Quilt Design

Use with Problem 3.

 fabric square	quilt

Word bank	
English	**Español**
area	área
duplicate	duplicada
expression	expresión
factor	factor
length	longitud
multiply	multiplicar
rectangle	rectángulo

I can make rectangles by . . .

I can draw rectangles that cover ____ squares on the grid.

I know I found all of the ways to make a rectangle when . . .

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Prime or Composite?

Use with Problems 3–4.

Life outside school		
basketball	quilt	quilt border

Word bank	
English	**Español**
expression	expresión
multiply	multiplicar
product	producto

Composite numbers have . . .

Prime numbers have . . .

I can find all of the factors by . . .

If there are _____ 2 factors, the number is _____.
(more than/only) *(prime/composite)*

I know _____ is a _____ number because it has _____
(number) *(prime/composite)* *(more than/only)*
2 factors.

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Prime or Composite? (continued)

prime number
número primo

Definition

A number that has _____ factor pair.

Characteristics

- The factors are __ and the given number.
- They are greater than 1.

Example

2
3
13

Non-Example

6
12
100

composite number
número compuesto

Definition

A number that has _____ factor pair.

Characteristics

- All even numbers, except _____.
- Can be divided evenly by numbers other than 1 and itself.

Example

6
12
100

Non-Example

2
3
13

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Card Sort: Multiplication

Use with Problems 2–3.

Word bank					
English	**Español**	**English**	**Español**	**English**	**Español**
expression	expresión	multiple	múltiplo	product	product
factor	factor	multiply	multiplicar		
half	medio	pattern	patrón		

First, I/we . . .

Next, I/we . . .

Our final answer was . . .

We both . . .

I used _____, but my partner . . .

I know that . . .

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Making Tunnels

Use with Activity 2.

hamster	tube

I multiplied . . .

We knew we found all of the factor pairs because . . .

I know that _____ × _____ = _____.

We knew that _____ was a prime number, so the only factor pair was _____ × _____.

Word bank	
English	**Español**
duplicate	duplicado
factor	factor
height	altura
length	longitud
multiple	múltiplo
multiply	multiplicar
pattern	patrón
prime	primo
product	producto

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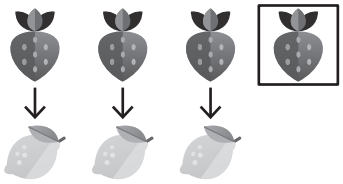
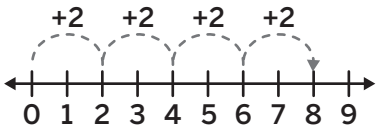
Factor and Multiple Statements

Use with Problems 1–2.

Strategies		
		
compare	equal groups	skip counting

_____ groups of _____ make _____.

_____ and _____ are a factor pair of _____.

_____ multiplied by _____ is _____.

I can find a number for the _____ column by . . .
(Factor/Multiple)

For both numbers, I can . . .

I can use _____ to find the numbers.
(strategy)

I used _____ while my partner used _____.
(strategy) *(strategy)*

Word bank			
English	**Español**	**English**	**Español**
column	columna	multiple	múltiplo
different	diferente	multiply	multiplicar
factor	factor	similar	similar

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Finding the Matches

Use with Problem 2.

Word bank					
English	Español	English	Español	English	Español
clue	pista	factor	factor	prime	primo
composite	compuesto	multiple	múltiplo		
even	par	odd	impar		

Set 1, Clue A

- This number has more than 2 *factors*.
- 6 is a factor of this number.
- This number is a *multiple* of 3.
- 108 is a *multiple* of this number.

Set 1, Clue B

- This number is a *multiple* of 6.
- This number is *composite*.
- 4 is a *factor* of this number.
- 120 is a *multiple* of this number.

Set 1, Clue C

- This number is not *prime*.
- This number is a *multiple* of 3.
- 84 is a *multiple* of this number.
- 7 is a *factor* of this number.

The number _____ matches all of the clues on the card.

The important words are . . .

The clues that were most helpful were . . .

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Name _____ Date _____

What's the Number?

Use with Activity 2.

The factors of my number are . . .

Multiples of my number are . . .

Is _____ a factor?

Is it a multiple of _____?

Is it a factor of _____?

Is it prime?

Is it composite?

Word bank	
English	**Español**
clue	pista
composite	compuesto
eliminate	eliminar
even	par
factor	factor
gameboard	tablero de juego
multiple	múltiplo
odd	impar
prime	primo
question	pregunta

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Vocabulary Cards, Unit 2

Directions: Make enough copies so that each student receives one card for each term. Pre-cut the cards and distribute them during the lesson(s) in which the term is introduced.

common denominator

The same denominator of two or more fractions.

$\frac{2}{8}$ $\frac{4}{8}$

common denominator

Vocabulary Cards, Unit 2 · Lesson 12

common numerator

The same numerator of two or more fractions.

common numerator

$\frac{3}{4}$ $\frac{3}{6}$

Vocabulary Cards, Unit 2 · Lesson 13

common denominator

The same denominator of two or more fractions.

$\frac{2}{8}$ $\frac{4}{8}$

common denominator

Vocabulary Cards, Unit 2 · Lesson 12

common numerator

The same numerator of two or more fractions.

common numerator

$\frac{3}{4}$ $\frac{3}{6}$

Vocabulary Cards, Unit 2 · Lesson 13

common denominator

The same denominator of two or more fractions.

$\frac{2}{8}$ $\frac{4}{8}$

common denominator

Vocabulary Cards, Unit 2 · Lesson 12

common numerator

The same numerator of two or more fractions.

common numerator

$\frac{3}{4}$ $\frac{3}{6}$

Vocabulary Cards, Unit 2 · Lesson 13

common denominator

The same denominator of two or more fractions.

$\frac{2}{8}$ $\frac{4}{8}$

common denominator

Vocabulary Cards, Unit 2 · Lesson 12

common numerator

The same numerator of two or more fractions.

common numerator

$\frac{3}{4}$ $\frac{3}{6}$

Vocabulary Cards, Unit 2 · Lesson 13

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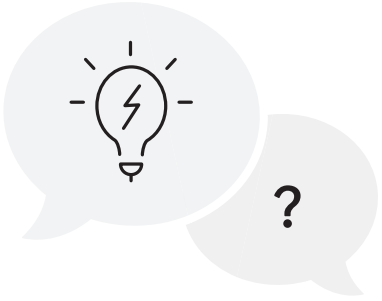
Ways to be a Mathematician

Formas de ser matemático/ matemática

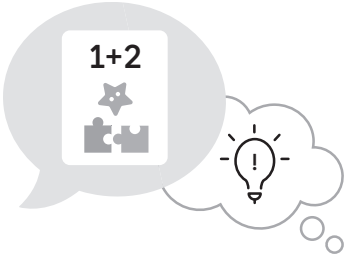
1 I can explain why my thinking makes sense and ask questions to understand the thinking of others.

Puedo explicar por qué mi pensamiento tiene sentido y hacer preguntas para comprender el pensamiento de los demás.



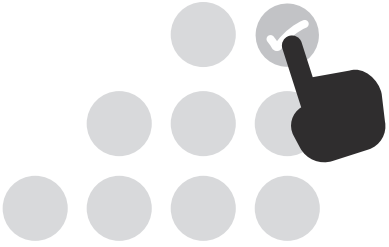
2 I can work carefully and try to be clear when I share my ideas.

Puedo trabajar con cuidado y tratar de ser claro/clara cuando comparto mis ideas.



3 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.



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Name _____ Date _____

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 . . .

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Creating Fraction Strips

Use with Problems 2–4.

Denominator	Unit fraction		
$\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$	one half	one fourth	one eighth
	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$

_____ is smaller than _____.

_____ is much smaller than _____.

_____ is half the size of _____.

_____ is larger than _____.

_____ is much larger than _____.

_____ is twice as large as _____.

Word bank	
English	**Español**
equal	igual
equipartition	equipartición
expression	expresión
half	mitad
larger	más grande
smaller	más pequeña
twice	dos veces

As the denominator gets _____, the size of the fraction gets _____.
(smaller / larger) *(smaller / larger)*

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Locating Fractions

Use with Activity 1.

fraction-strip diagram	log	number line
$\frac{1}{2}$ denominator	$\frac{1}{2}$ numerator	

First, I . . .

Next/Then, I _____ because . . .

I located the fraction _____ by . . .

The fraction is between the whole numbers _____ and _____.

Word bank	
English	**Español**
equal	igual
equipartition	equipartición
half	mitad
larger	más grande
smaller	más pequeña
strategy	estrategia
twice	dos veces

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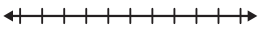
Fractions on a Number Line

Use with Problem 9.

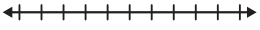
$\frac{1}{\textcircled{2}}$ denominator	$\frac{\textcircled{1}}{2}$ numerator

Word bank						
English	equal	expression	factor	multiple	partition	strategy
Español	igual	expresión	factor	múltiplo	partición	estrategia



I chose the number line partitioned into _____ because . . .

I know that . . .



Another number line that would have worked is _____ because . . .

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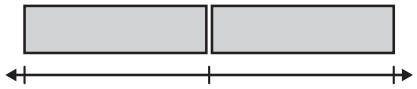
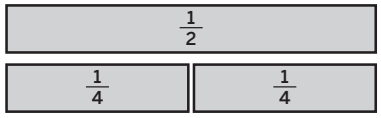
Name _____ Date _____

Same Size, Different Numbers

Use with Problem 6.

Word bank		
English	**Español**	**Example**
equipartition	equipartición	 2 equal-sized sections
equivalent fractions	fracciones equivalentes	
fraction-strip diagram	diagrama de cinta de fracciones	
non-unit fraction	fracción no unitaria	$\frac{2}{3}$
unit fraction	fracción unitaria	$\frac{1}{2}$

I know that two fractions are equivalent because . . .

The fraction-strip diagrams show that . . .

When I look at the shaded parts, I see . . .

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Using Visual Fraction Models

Use with Problems 7–9.

Models	
fraction-strip diagram	number line

Word bank	
English	**Español**
equipartition	equipartición
equivalent	equivalente
fraction	fracción
length	longitud
model	modelo
section	sección
tick mark	marca indicadora

I used a _____ to show that the fractions
(model)
are equivalent.

I drew . . .

I partitioned . . .

The _____ diagram has . . .
(first/second/third)

I shaded . . .

I counted . . .

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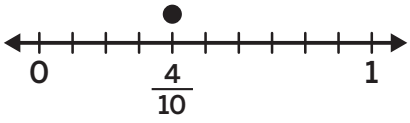
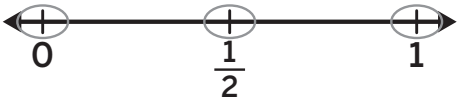
How Many Can You Hit?

Use with Activity 2.

$\frac{1}{2}$ denominator	$\frac{1}{2}$ numerator	**3:** 3, 6, 9, 12,... multiple	 target
 The number line is **equipartitioned** (divided) into 10 equal-sized sections. Each section is $\frac{1}{10}$.		 tick mark	

I know when fractions are equal because . . .

My fractions are equivalent because . . .

I can use number lines to show . . .

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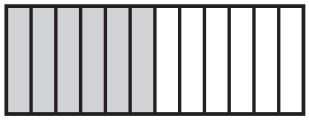
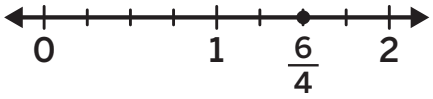
How Do You Know?

Use with Problem 1.

Visual models		
$\frac{18 \div 3}{12 \div 3} = \frac{6}{4}$		
equation	fraction-strip	number line

My equivalent fractions are . . .

My fractions are equivalent because . . .

I know they are equal because . . .

My model shows that . . .

It looks like . . .

Word bank	
English	**Español**
equivalent	equivalente
fraction	fracción
length	longitud
model	modelo
section	sección
tick mark	marca indicadora

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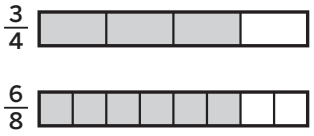
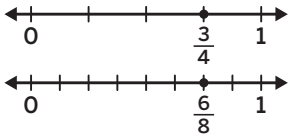
Using Multiples of Equivalent Fractions

Use with Problems 1–3.

$\frac{1}{\textcircled{2}}$ denominator	$\frac{\textcircled{1}}{2}$ numerator	**3:** 3, 6, 9, 12,... multiple
 fraction-strip diagrams	 number lines	$\frac{3 \times 2}{4 \times 2} = \frac{6}{8}$ equation

Word bank					
English	division	equipartition	factor	multiplication	section
Español	división	equipartición	factor	multiplicación	seccion

The equation and the model are similar because . . .

The _____ changed because . . .

The numerator was _____ by _____ because . . .
(multiplied/divided)

The denominator was _____ by _____ because . . .
(multiplied/divided)

The shaded sections were partitioned into _____ because . . .

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Equivalent Distances

Use with Problems 1–5.

Word bank				
English	distance	divide	equivalent	multiplicar
Español	distancia	dividir	equivalente	multiplicar

I used **multiples** to determine equivalent fractions by . . .

I used **factors** to determine equivalent fractions by . . .

I **multiplied** the numerator and denominator . . .

I **divided** the numerator and denominator . . .

I know these fractions are equivalent because . . .

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Equivalent Distances (continued)

factor
factor

Definition

The numbers being multiplied.

Characteristics

__is a factor of every number.

__ is a factor of every even number.

Example

$4 \times 5 = 20$
factors

Non-Example

$4 + 5 = 9$
addends

multiple
múltiplo

Definition

The result of multiplying a number by a whole number.

Characteristics

always _____ numbers

Example

20 is a multiple of 10 because $10 \times 2 = 20$.

Non-Example

25 is not a multiple of 10 because you cannot multiply 10 by a whole number to get 25.

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Comparing Fractions

Use with Problems 5–7.

I agree because . . .

I disagree because . . .

The fraction is **greater** because . . .

The fraction is **smaller** because . . .

The numerators are . . .

The denominators are . . .

Fractions with the same denominator have . . .

The fraction with the **greater** denominator has . . .

The fraction with the **smaller** denominator has . . .

Word bank	
English	**Español**
denominator	denominador
equipartition	equipartición
fraction-strip diagram	diagrama de cinta de fracciones
greater	mayor
multiply	multiplicar
numerator	numerador
smaller	menor

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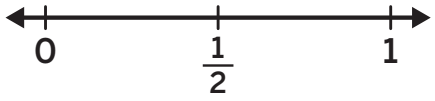
New Pairs to Compare

Use with Problems 6–10.

Strategies	
 benchmark	$\frac{5}{10}$ $\frac{9}{10}$ common denominators
fraction-strip diagram	number line

Word bank					
English	compare	equipartition	equivalent	fraction	numerator
Español	comparar	equipartición	equivalente	fracción	numerador

I used _____ to compare the fractions.
(strategy)

First, I . . .

Then/Next, I . . .

This strategy would work for all fractions because . . .

This strategy would not work for all fractions because . . .

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Finding Something in Common

Use with Problem 11.

Word bank					
English	compare	equivalent	factor	fraction	multiple
Español	comparar	equivalente	factor	fracción	múltiplo

Strategies		
$\frac{5}{10}$ $\frac{9}{10}$ common denominators	$\frac{3}{4}$ $\frac{3}{10}$ common numerators	
< greater than	**=** equal	**>** less than

These answers are _____ because . . .
(similar/different)

I chose _____ as a common **denominator** because . . .

I chose _____ as a common **numerator** because . . .

Another common **denominator** I could have chosen is _____ because . . .

Another common **numerator** I could have chosen is _____ because . . .

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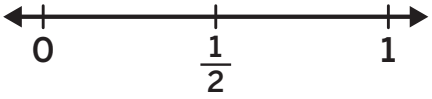
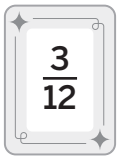
Put Them in Order

Use with Activity 1.

Strategies	
 benchmark	$\frac{5}{10}$ $\frac{9}{10}$ common denominators
fraction-strip diagram	number line



card

Word bank							
English	compare	equal	equivalent	fraction	greater than	less than	numerator
Español	comparar	igual	equivalente	fracción	más que	menos que	numerador

I used _____ to compare the fractions.
(strategy)

First, I . . .

Then/Next, I . . .

I compared the fractions by . . .

I know _____ is the **greatest** fraction, because . . .

I know _____ is the **least** fraction, because . . .

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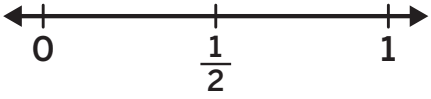
Ordering Distances

Use with Problems 1–3.

Strategies	
 benchmark	common denominators
fraction-strip diagram	$\frac{5}{10}$ $\frac{9}{10}$ number line

I **ordered** the fractions by . . .

I **compared** the fractions by . . .

I needed to find . . .

The strategies are **similar** because . . .

The strategies are **different** because . . .

I _____ use the same strategies to compare and order because . . .
(can/cannot)

Word bank	
English	**Español**
equivalent	equivalente
fraction	fracción
greater than	más que
less than	menos que

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Vocabulary Cards, Unit 3

Directions: Make enough copies so that each student receives one card for each term. Pre-cut the cards and distribute them during the lesson(s) in which the term is introduced.

hundredth/hundredths

One of 100 equal parts. The plural of hundredth is hundredths.

$\frac{1}{100}$

Vocabulary Cards, Unit 3 · Lesson 13

tenth/tenths

One of 10 equal parts. The plural of tenth is tenths.

$\frac{1}{10}$

Vocabulary Cards, Unit 3 · Lesson 13

mixed number

A number expressed as a whole number and a fraction less than 1.

$2\frac{3}{4}$

Vocabulary Cards, Unit 3 · Lesson 3

hundredth/hundredths

One of 100 equal parts. The plural of hundredth is hundredths.

$\frac{1}{100}$

Vocabulary Cards, Unit 3 · Lesson 13

tenth/tenths

One of 10 equal parts. The plural of tenth is tenths.

$\frac{1}{10}$

Vocabulary Cards, Unit 3 · Lesson 13

mixed number

A number expressed as a whole number and a fraction less than 1.

$2\frac{3}{4}$

Vocabulary Cards, Unit 3 · Lesson 3

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Ways to be a Mathematician

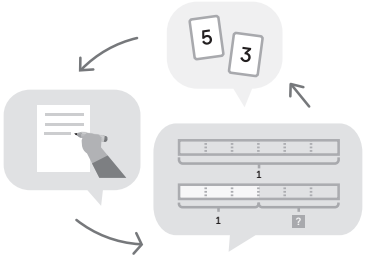
Formas de ser matemático/ matemática

1 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.

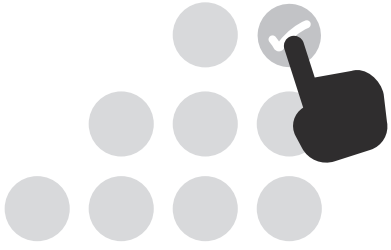
2 I can use numbers, words, and diagrams to make sense of math ideas and situations.

Puedo usar números, palabras y diagramas para hacer sentido de ideas y situaciones matemáticas



3 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.



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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 . . .

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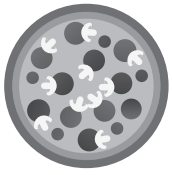
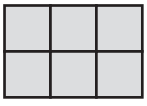
Sharing a Veggie Pizza

Use with Problem 5.

Pizza toppings		
		
mushrooms	olives	pizza

Parts of a fraction		
$\frac{1}{2}$	$\frac{2}{3}$	 $\frac{6}{6}$
denominator	fraction	whole

I had to _____ the parts and _____ the fractions because . . .
(join/separate) *(add/subtract)*

I noticed _____ so I . . .

The word _____ made me think . . .

The equation represents the problem because . . .

The denominator in all of the fractions represents . . .

Word bank					
English	addition	join	non-unit fraction	separate	subtraction
Español	adición	unir	fracción no unitaria	separado	sustracción

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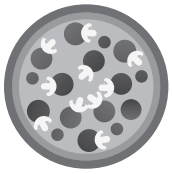
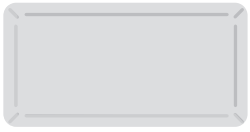
Any Way You Slice It

Use with Activity 1.

$\frac{1}{②}$ denominator	$\frac{①}{2}$ numerator	 pizza	 tray

I agree with _____ because . . .

I know because . . .

I can add _____ because . . .

The fractions can be combined because . . .

Word bank	
English	**Español**
combine	combinar
decompose	descomponer
equation	ecuación
equivalent	equivalente
expression	expresión
mixed number	número mixto

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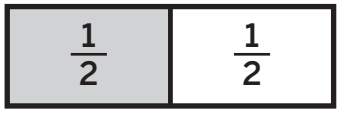
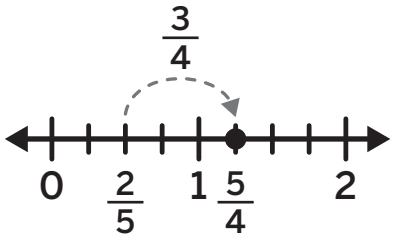
Water and Ribbon for Finny

Use with Problems 1–3.

Visual models			
			
fraction-strip diagram	number line	pot	ribbon

Our models are

_____ because . . .
(similar/different)

Our equations are

_____ because . . .
(similar/different)

Word bank	
English	**Español**
addition	adición
fraction	fracción
model	modelo
subtraction	sustracción

The model and the equation represent . . .

I see _____ in the equation and _____ in the model.

The _____ in the model represents _____ in the equation.

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Water and Ribbon for Finny (continued)

Definition

A math statement showing that the values on each side of the equal sign are the same.

Characteristics

- Has an equal sign =
- Can include adding, subtracting, multiplying or dividing

equation
ecuación

Example

$3 + 5 = 8$

$6 \times 4 = 24$

$10 - 2 = 8$

Non-Example

$4 + 2$

$10 - 5$

3×3

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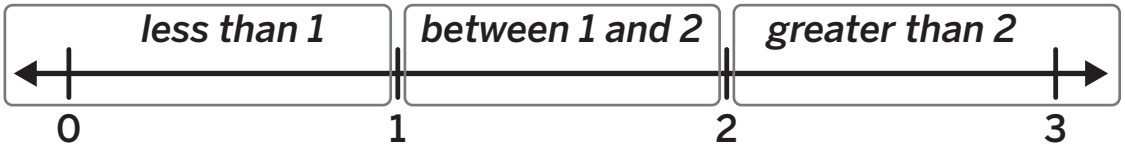
Card Sort: Estimate the Sum or Difference

Use with Problem 2.



We know _____ is less than 1 because . . .

We know _____ is between 1 and 2 because . . .

We know _____ is greater than 1 because . . .

_____ is close to _____, so . . .

_____ is about _____, so . . .

The expressions with _____ were the most challenging to sort because . . .

We know _____ is _____ because . . .
(fraction) *(less than 1/between 1 and 2/greater than 2)*

We used _____ to help sort the expressions.

Word bank						
English	difference	expression	mixed number	non-unit fraction	sum	unit fraction
Español	diferencia	expresión	número mixto	fracción no unitaria	suma	fracción unitaria

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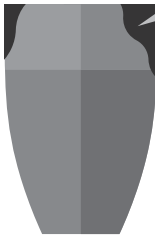
What's Left?

Use with Problems 1–4.

cup	plant	 pot	watering can

Word bank					
English	addition	decompose	fraction	subtraction	whole number
Español	adición	descomponer	fracción	sustracción	número entero

Henry poured _____ cups of water into Finny's pot.

I know this because . . .

_____ cups of water are in the watering can now.

I used _____ to solve the problem.

First, I . . .

Then/Next, I . . .

Decomposition is helpful when . . .

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Name _____ Date _____

What's Left? (continued)

Definition

A number expressed as a whole number and a fraction less than 1.

Characteristics

- Is greater than 1
- Includes a whole number and a fraction

mixed number
número mixto

Example

$1\frac{1}{2}$

$3\frac{1}{4}$

$5\frac{3}{4}$

Non-Example

$\frac{1}{2}$

$\frac{1}{4}$

$\frac{3}{4}$

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Card Sort: To Decompose or Not to Decompose

Use with Problems 4–6.

Word bank						
English	difference	expression	helpful	mixed number	necessary	sum
Español	diferencia	expresión	útil	número mixto	necesario	suma

It is necessary to decompose because . . .

It is helpful to decompose because . . .

It is not necessary to decompose because . . .

It is not helpful to decompose because . . .

I decomposed _____ by . . .

Definition

To break apart.

Characteristics

- Helps to simplify fractions
- The broken apart pieces add up to the original fraction

decompose
descomponer

Example

$9 - 2\frac{5}{7} =$

$8\frac{7}{7} - 2\frac{5}{7} =$

$6\frac{2}{7}$

Non-Example

$9 - 2\frac{5}{7} = 6\frac{2}{7}$

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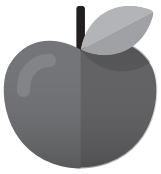
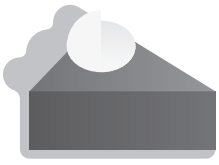
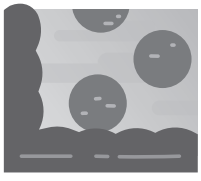
What Could It Mean?

Use with Problems 6–7.

Ideas for equal groups			
 apple	balloons	flowers	friends
 piece of pie	 piece of pizza	pitcher of lemonade	

Word bank						
English	drawing	expression	represent	situation	unit fraction	whole number
Español	dibujo	expresión	representar	situación	fracción unitaria	número entero

There are _____ _____. Each _____ gets _____ of the _____.
(number) *(objects)* *(object)* *(fraction)* *(objects)*

I have _____ _____. There is _____ of the _____ for each _____.
(number) *(objects)* *(fraction)* *(objects)* *(object)*

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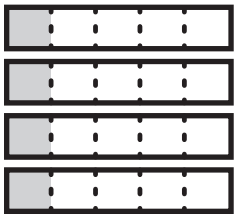
Different Representations

Use with Problem 7.

Strategies	
 diagram	$4 \times \frac{1}{5}$ expression

Word bank	
English	**Español**
multiply	multiplicar
product	producto
represent	representar
unit fraction	fracción unitaria
whole number	número entero

I can determine the product of a whole number and a unit fraction by . . .

A strategy for finding the product is . . .

The product makes sense because . . .

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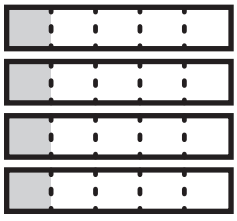
Potting Soil

Use with Problems 1–2.

Strategies	
 diagram	$4 \times \frac{1}{5}$ expression

Word bank	
English	**Español**
denominator	denominador
multiply	multiplicar
non-unit fraction	fracción no unitaria
numerator	numerador
product	producto
shaded	sombreado
whole number	número entero

I can find the product of a whole number and a non-unit fraction by . . .

My/Your diagram has . . .

My/Your expression is . . .

Our _____ is similar because . . .
(diagram/expression)

Our _____ is different because . . .
(diagram/expression)

cup	large jar	small jar	soil

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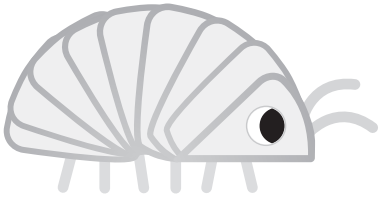
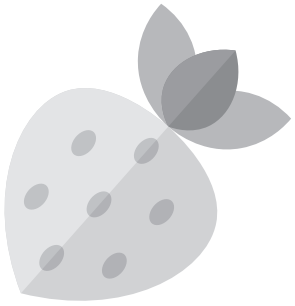
Fill the Gaps!

Use with Activity 2.

block	 Ronnie	 strawberry

Word bank						
English	denominator	expression	factor	multiply	numerator	represent
Español	denominador	expresión	factor	multiplicar	numerador	representar

_____ × _____ represents $\frac{8}{10}$ because . . .

_____ × _____ represents $\frac{5}{6}$ because . . .

_____ × _____ and _____ × _____ are equivalent because . . .

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Fill the Gaps! (continued)

composite number
número compuesto

Definition

A number that has more than 1 factor pair.

Characteristics

- At least 3 factors

Example

4, 6, 8, 10, 12 . . .

Non-Example

1, 2, 3, 5, 7 . . .

prime number
número primo

Definition

A number that has only 1 factor pair.

Characteristics

- Only 2 factors: 1 and itself

Example

1, 2, 3, 5, 7 . . .

Non-Example

4, 6, 8, 10, 12 . . .

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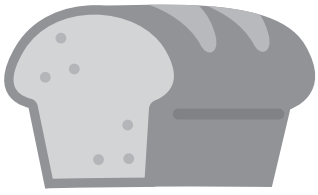
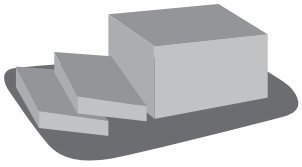
Banana Bread

Use with Problem 2.

Ingredients			
all-purpose flour	baking soda	banana	 bread
 butter	egg	sugar	

Word bank							
English	denominator	double	enough	equal	less	more	numerator
Español	denominador	doble	suficiente	igual	menos	más	numerador

The expression _____ represents the amount of _____.
(expression) *(ingredient)*

_____ is less than _____. _____ is more than _____.

_____ is the same as _____.

Clare _____ have enough _____ because . . .
(does/does not) *(butter/sugar)*

Clare can make _____ loaves of banana bread because . . .

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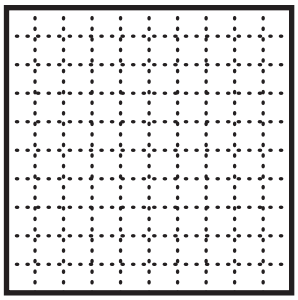
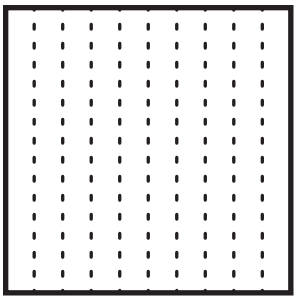
Tenths and Hundredths

Use with Problem 2.

 hundredths	 tenths

Word bank		
English	common denominator	equivalent fraction
Español	denominador común	fracción equivalente

I _____ by _____ because . . .
(multiplied/divided)

I noticed _____, so I . . .

The fractions are equivalent because . . .

_____ did not have an equivalent fraction because . . .

_____ are multiples of 10.

_____ are not multiples of 10.

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Card Sort: Less Than, Equal to, or Greater Than 1

Use with Problems 1–3.

I know Card _____ is **less than 1** because . . .

I know Card _____ is **equal to 1** because . . .

I know Card _____ is **greater than 1** because . . .

_____ is equivalent to _____ so . . .

I agree with _____ because . . .

I disagree with _____ because . . .

Word bank	
English	Español
denominator	denominador
divide	dividir
double	doble
equivalent fraction	fracción equivalente
hundredths	centésimas
multiply	multiplicar
numerator	numerador
tenths	décimas

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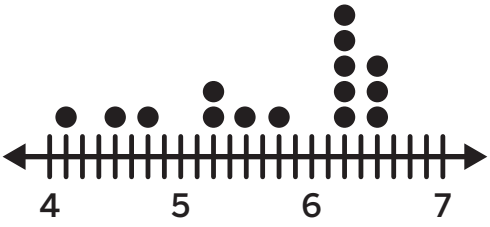
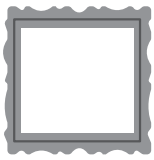
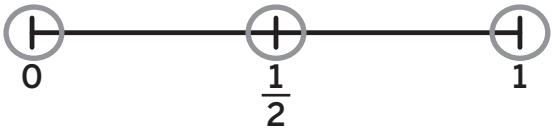
Henry's Colored Ribbons

Use with Problem 4.

 line plot	 picture frame
 tick mark	ribbon

I _____ with Henry because . . .
(agree/disagree)

Word bank		
English	dot	fraction
Español	punto	fracción

The length of the shortest piece of ribbon is _____ because . . .

The length of the longest piece of ribbon is _____ because . . .

The combined length of the shortest and longest pieces of ribbon is _____.
I know this because . . .

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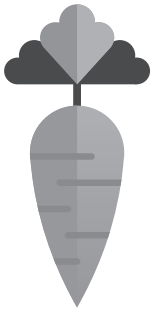
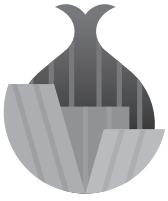
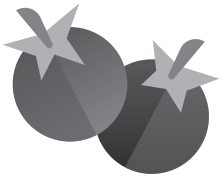
Mixed Vegetables

Use with Activity 1.

Mixed vegetables				
				
basket	carrot	onion	pumpkin	tomato

The line plots show . . .

The line plots are similar because . . .

The line plots are different because . . .

Basket _____ weighs _____
(less than/more than/the same as)

Basket _____ because . . .

Word bank	
English	**Español**
data	datos
dot	punto
eighth	octavo
fourth	cuarto
fraction	fracción
line plot	gráfica de puntos
tick mark	marca indicadora

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Vocabulary Cards, Unit 4

Directions: Make enough copies so that each student receives one card for each term. Pre-cut the cards and distribute them during the lesson(s) in which the term is introduced.

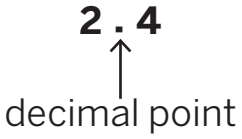
decimal

A way to write fractional values using single digits for each place value.

Vocabulary Cards, Unit 4 · Lesson 2

decimal point

A dot that separates the whole number part from the fractional part of a decimal number.



Vocabulary Cards, Unit 4 · Lesson 2

hundred thousand

The base-ten place value unit composed of 10 ten thousands. One hundred thousand is written as 100,000.

Vocabulary Cards, Unit 4 · Lesson 9

million

The base-ten place value unit composed of 10 hundred thousands. One million is written as 1,000,000.

Vocabulary Cards, Unit 4 · Lesson 9

ten thousand

The base-ten place value unit composed of 10 one thousands. One ten thousand is written as 10,000.

Vocabulary Cards, Unit 4 · Lesson 9

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Ways to be a Mathematician

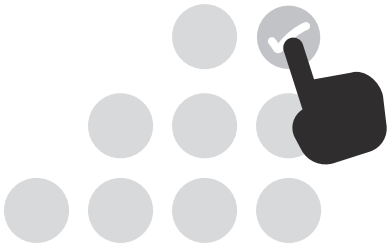
Formas de ser matemático/ matemática

1 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 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.



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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 . . .

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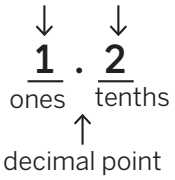
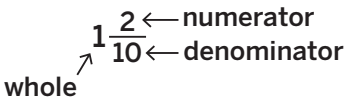
Connecting Representations

Use with Problems 6–9.

 decimal	 fraction

Word bank	
English	**Español**
diagram	diagrama
equivalent	equivalente
part	parte
place	lugar
whole	entero

I notice that both fractions and decimals are . . .

The decimal represents the **diagram** because . . .

The decimal represents the **fraction** because . . .

The decimal represents the **mixed number** because . . .

The tenths are represented by _____ in the _____.
(diagram/fraction/decimal)

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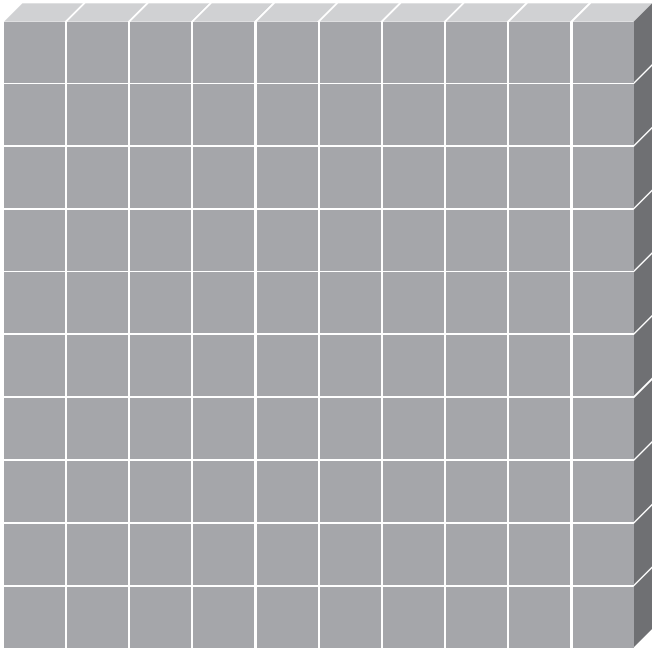
Name _____ Date _____

Extending Decimals

Use with Problem 5.



Word bank	
English	**Español**
decimal	decimal
diagram	diagrama
digit	dígito
equivalent	equivalente
fraction	fracción
hundredth	centésima
mixed number	numero mixto

I notice that decimals and mixed numbers are both . . .

Decimals are _____ fractions because . . .
(similar to/different from)

I wonder if decimals and mixed numbers . . .

The denominator of 100 is represented by _____ in the _____.
(diagram/fraction/decimal)

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True or False

Use with Problems 3–5.

_____ is _____ because . . .
(equation) *(true/false)*

My new equation was _____ because . . .
(equation)

I notice that tenths and hundredths are . . .

I _____ with Jada because . . .
(agree/disagree)

On the number line, I notice that . . .

Word bank	
English	**Español**
decimal	decimal
equation	ecuación
equivalent	equivalente
false	falso
fraction	fracción
hundredth	centésima
number line	recta numérica
point	punto
tenth	décima
true	verdadero

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Mix and Mingle: Comparing Decimals

Use with Problems 8–9.

I can compare 2 decimals by . . .

I can use equivalent fractions to help me compare decimals by . . .

I know my partner has a decimal that is _____ my
(greater than/less than/equal to)
decimal because . . .

Word bank	
English	**Español**
decimal	decimal
denominator	denominador
equivalent	equivalente
fraction	fracción
greater than	mayor que
less than	menor que
mixed number	número mixto
numerator	numerador
place value	valor posicional

Definition

Looking at two numbers to see which one is bigger and which one is smaller.

compare
comparar

Characteristics

How many more?
Which is greater?

How many in all?

Example

$0.5 > 0.05$

$0.45 > 0.2$

Non-Example

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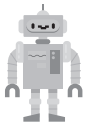
All in Order

Use with Activity 2.

Word bank					
English	decimal	equivalent	greatest	hundredth	least
Español	decimal	equivalente	mayor	centésima	menor

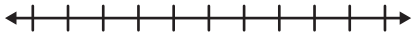
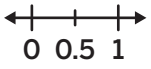


I _____ think that the order of these decimals make a robot because . . .
(do/do not)

I can compare decimals using . . .

_____ is _____ than _____ because . . .
(greater/less)

I know _____ and _____ are equivalent because . . .

 number line	 benchmark decimal
$0.23 = \frac{23}{100}$ $0.4 = \frac{40}{100}$ equivalent fractions and decimals	<table><tr><td>tens</td><td>ones</td><td>·</td><td>tenths</td><td>hundredths</td></tr><tr><td></td><td></td><td>·</td><td></td><td></td></tr></table> place value

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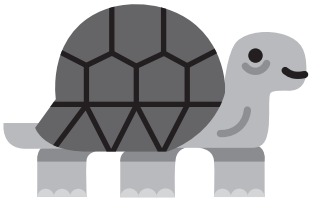
Ordering Again and Again

Use with Problems 1–4.

= equal	> greater than
< less than	number line

Word bank	
English	**Español**
decimal	decimal
equivalent	equivalente
fraction	fracción
greatest	mayor
least	menor
mixed number	número mixto

Fractions and decimals are related because . . .



turtle

I ordered the fractions and decimals using . . .

I noticed that equivalent lengths . . .

In the class data, the value _____ *(value)* is the _____ *(greatest/least)* because . . .

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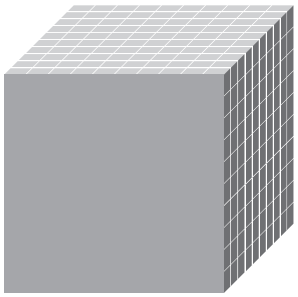
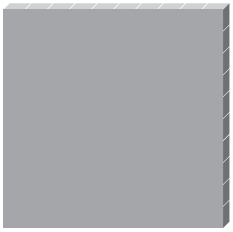
Efficiency, Efficiency, Efficiency

Use with Activity 2.

thousands	hundreds	tens	ones
			

The _____ number of tokens needed to represent 10,000 are . . .
(greatest/least)

I know this because . . .

Word bank				
English	compose	decompose	digit	place value
Español	componer	descomponer	dígito	valor posicional

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Change the Form

Use with Problems 7–10.

154,132					
Standard Form					
1 hundred thousands	5 ten thousands	4 thousands	1 hundreds	3 tens	2 ones
100,000 hundred thousands	50,000 ten thousands	4,000 thousands	100 hundreds	30 tens	2 ones

I noticed that standard and expanded form both . . .

I represented each digit in expanded form by . . .

Word bank	
English	**Español**
digit	dígito
million	millón

I used place value to write in expanded form by . . .

I _____ represent the 0 in expanded form because . . .
(did/did not)

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Expanding Large Numbers

Use with Problems 7–11.

Number forms		
835,279 standard form	800,000 + 30,000 + 5,000 + 200 + 70 + 9 expanded form	eight hundred thirty-five thousand, two hundred seventy nine in words

I notice that all of the number forms . . .

I know a number is 10 times another number if . . .

I can find the place value of a digit by . . .

I know the statement is true because . . .

Word bank	
English	**Español**
left	izquierda
right	derecho
sum	suma
ten times	diez veces mas
value	valor

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What's the Number?

Use with Problems 5–9.

I noticed that Clues 5–7 had . . .

I can create my own clues by . . .

I know the other group's mystery number is _____ because . . .

Word bank	
English	**Español**
clue	pista
compared	comparado
describe	descubrir
digit	dígito
mystery	misterio
number	número
place value	tabla de valores
value	valor

Clue 1:

The value of _____ in the mystery number is 10 times as much as the _____ in _____.

Clue 2:

The value of _____ in the mystery number is 10 times as much as the _____ in _____.

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Ways to Compare

Use with Problems 6–7.

>	<
greater than	less than

I notice that when I compare 2 numbers . . .

If the numbers have the same greatest place value, I . . .

I can compare any pair of multi-digit numbers by . . .

Word bank	
English	**Español**
compare	comparar
digit	dígito
greater	mayor que
least	menor que
left	izquierda
number	número
pair	par
place value	tabla de valores
right	derecho

Standard Form					
154,132					
1 hundred thousands	5 ten thousands	4 thousands	1 hundreds	3 tens	2 ones
100,000	50,000	4,000	100	30	2

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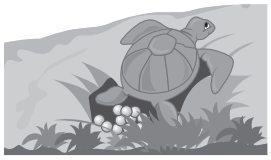
Comparing Turtle Nest Counts

Use with Problem 4.

sea turtle	 sea turtle nest

I notice that the data . . .

To determine the **least** number, I . . .

To determine the **greatest** number, I . . .

Word bank	
English	**Español**
addition	suma
compare	comparar
determine	determinar
digit	dígito
expression	expresión
greatest	mayor
least	menor
patrol	patrulla
place value	tabla de valores
sum	suma

Place value helps me to determine the **least** number because . . .

Place value helps me to determine the **greatest** number because . . .

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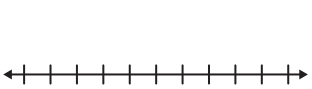
Round and Round You Go

Use with Activity 2.

 number line	skier

Word bank	
English	**Español**
closer	más cerca
digit	dígito
hundred thousand	cien mil
multiple	múltiple
nearest	más cercano
place value	valor posicional
right	derecha
rounding	redondeo
ten thousand	diez mil

When I round, I notice that . . .

I can use _____ *(place value/multiples/a number line)* to help me round by . . .

I rounded _____ *(number)* to _____ *(number)* because . . .

Skier _____ *(1/2)*'s number could be _____ *(number)*.

It rounds to 200,000 because there is a _____ *(number)* in the _____ *(place value)* place.

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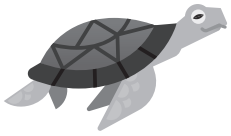
Rounding Turtle Egg Counts

Use with Problems 1–2.

				
beach	egg	number line	sea turtle	sea turtle nest

When I round to the nearest **1,000**, my estimate is _____ the *(closer to/further from)* actual number.

When I round to the nearest **10,000**, my estimate is _____ the *(closer to/further from)* actual number.

This means that rounding to the nearest _____ makes my answer more accurate for this set of data.

Word bank	
English	**Español**
closer	más cerca
data	datos
digit	dígito
estimate	estimar
further	más lejos
patrol	patrulla
right	derecha
round	redondear

In the real world, I can use rounding to find an estimate when . . .

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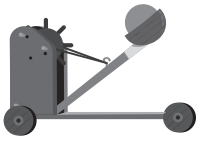
Close Enough

Use with Activity 1.

		
canvas	catapult	paint

Word bank	
English	**Español**
addend	sumando
digit	dígito
estimate	estimar
expression	expresión
greater	mayor que
less than	menor que
place value	valor posicional
round	redondear
sum	suma

When I estimate the sum . . .

The 3 estimates are

_____ because . . .
(similar/different)

_____ is closer to the actual sum because . . .
(number)

I estimate the sum is _____ because . . .
(number)

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Algorithm Comparisons

Use with Activity 1.

Addition algorithms	
10,000 + 7,000 + 300 + 70 + 5 + 10,000 + 4,000 + 0 + 20 + 4 20,000 + 11,000 + 300 + 90 + 9 = 31,399	1 17,375 + 14,024 31,399
expanded form	standard form

beach

sea turtle

turtle hatching

Word bank	
English	Español
addition	suma
compose	componer
digit	dígito
place value	valor posicional
sum	suma
unit	unidad

Both algorithms are

_____ because . . .
(similar/different)

In the _____ algorithm,
(expanded form/standard)
the new units composed are shown in . . .

I can represent a newly composed unit by . . .

I prefer the _____ algorithm because . . .

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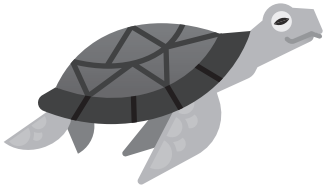
Subtraction With Algorithms

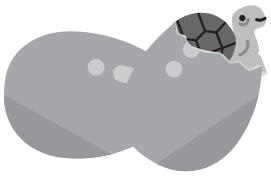
Use with Problems 4–5.

beach

egg



sea turtle



turtle hatching

Word bank	
English	**Español**
decompose	descomponer
difference	diferencia
digit	dígito
expanded form	forma expandida
place value	valor posicional
standard form	forma estándar
subtract	sustraer
unit	unidad

I notice the algorithms are

_____ because . . .
(similar/different)

In the _____ algorithm, decomposition is shown by . . .
(expanded form/standard)

I prefer the _____ algorithm because . . .
(expanded form/standard)

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Decomposing and Zeros

Use with Problems 4–7.

Diego's answer does not make sense because . . .

I can estimate Diego's answer using . . .

I can round 502,619 to _____.

I can round 14,407 to _____.

Diego's answer should be about _____ because . . .
(number)

The correct difference for Diego's work is _____.
(number)

I can use estimation to check my work by . . .

I notice that when there are zeros in the subtraction standard algorithm, then I need to . . .

Word bank	
English	**Español**
decompose	descomponer
difference	diferencia
error	error
estimate	estimar
rounding	redondeo
standard algorithm	algoritmo estándar
subtraction	sustracción

$$\begin{array}{r} {\scriptstyle 3\ 14} \\ 9\not{4},\not{4}23 \\ -\ 83,712 \\ \hline 10,711 \end{array}$$

standard form subtraction algorithm

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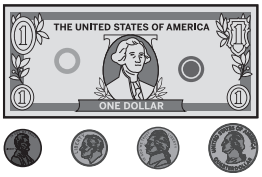
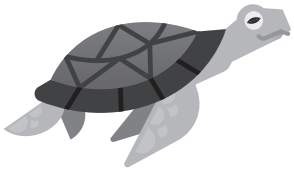
The Fundraiser

Use with Problems 5–6.

$ dollar sign	 money
 sea turtle	 thermometer

Word bank	
English	**Español**
difference	diferencia
equipment	equipo
expenses	gastos
fundraiser	recaudación de fondos
patrol	patrulla
spring	primavera
subtraction	sustracción
sum	suma
technology	tecnología
transmitter	transmisor
water tank	tanque de agua
winter	invierno

I estimated **$3,180** to $_____ by . . .

I estimated **$1,425** to $_____ by . . .

I estimated **$18,790** to $_____ by . . .

I estimated **$10,475** to $_____ by . . .

I estimated **$1,160** to $_____ by . . .

I estimated **$912** to $_____ by . . .

I estimated the sum of all expenses to be about $_____ by . . .
(number)

The amount _____ be enough because . . .
(will/will not)

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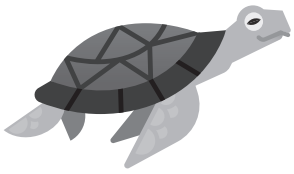
Turtles, Turtles, and More Turtles

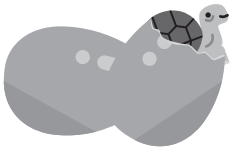
Use with Problems 1–2.

beach

egg



sea turtle



turtle hatching

Word bank	
English	**Español**
difference	diferencia
digit	dígito
estimate	estimar
inch	pulgada
length	longitud
month	mes
ounce	onza
patrol	patrulla
population	población
sum	suma
weight	peso

I notice that the data . . .

The number _____ could represent facts about more than one species of sea turtles.

It could represent _____ or _____ because . . .

I estimated the number _____ is about _____ so it could represent _____.

The missing value is _____ because . . .

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Words With Multiple Meanings

Draw a picture or write in words to show the math meaning and another meaning of the term.

Math meaning

second

Another meaning

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Vocabulary Cards, Unit 5

Directions: Make enough copies so that each student receives one card for each term. Pre-cut the cards and distribute them during the lesson(s) in which the term is introduced.

kilometer

A metric unit of length equal to 1,000 meters.

Vocabulary Cards, Unit 5 · Lesson 9

milliliter

A unit of measurement for liquid volume that is equal to 1 thousandth of a liter.

Vocabulary Cards, Unit 5 · Lesson 13

ounce

A unit of measurement for weight.
There are 16 ounces in 1 pound.

Vocabulary Cards, Unit 5 · Lesson 15

pound

A unit of measurement for weight that is equal to 16 ounces.

Vocabulary Cards, Unit 5 · Lesson 15

second

A unit of measurement for time.
There are 60 seconds in 1 minute.

Vocabulary Cards, Unit 5 · Lesson 16

yard

A unit of linear measurement equal to 3 feet.

Vocabulary Cards, Unit 5 · Lesson 11

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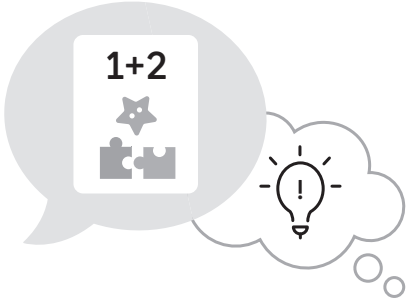
Ways to be a Mathematician
Formas de ser matemático/ matemática

1 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.

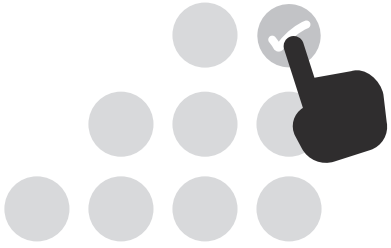
2 I can work carefully and try to be clear when I share my ideas.

Puedo trabajar con cuidado y tratar de ser claro/clara cuando comparto mis ideas.



3 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.



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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 . . .

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Grouping Galore

Use with Activity 2.

"Times as many" means . . .

I created a diagram by . . .

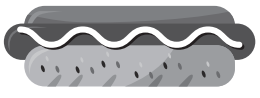
My strategy was . . .

I can represent the comparison by . . .

I can determine other possible quantities of bicycles and skateboards by . . .

If there are _____ skateboards, then I know there are _____ bicycles.

Word bank	
English	**Español**
comparison	comparación
determine	determinar
diagram	diagrama
many	veces más
multiply	multiplicar
possible	posible
quantity	cantidad
represent	representar
sticker	pegatina
strategy	estrategia
times	veces
unlimited	ilimitado

bicycle	football	hamburger
 hot dog	skateboard	star

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Connecting Representations of "Times as Many"

Use with Problems 6 and 7.

Han has _____ cubes.

Shawn has _____ times as many cubes as Han.

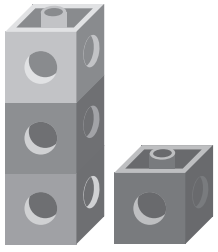
Clare has _____ cubes.

Jada has _____ times as many cubes as Clare.

My equation is . . .

I know this because . . .

Word bank	
English	**Español**
diagram	diagrama
equation	ecuación
factor	factor
many	veces más
statement	enunciado
times	veces



connecting cubes

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What Remains the Same?

Use with Problems 4–6.

I notice . . .

I notice that the values of *A* are . . .

I notice that the values of *B* are . . .

I determined the value of *B* for each row by . . .

I chose _____ as my equation because . . .

The diagram can represent different pairs of numbers because . . .

Word bank	
English	**Español**
determine	determinar
different	diferente
equation	ecuación
greater	mayor que
multiplication	multiplicación
pair	par
relationship	relación
represent	representar
row	fila
tape diagram	diagrama de cinta
value	valor

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How Many Meters?

Use with Problems 1–5.

Penny swam _____ times as many meters as Lucas.

My equation is _____ because . . .

Lucas swam _____ meters. I know this because . . .

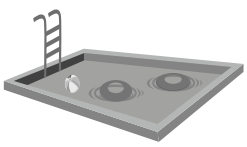
My equation is similar to my partner's because we both . . .

My equation is different from my partner's because . . .

My equation represents the story problem because . . .

My equation represents the diagram because . . .

Word bank	
English	**Español**
altogether	en total
community center	centro comunitario
compare	comparar
equation	ecuación
lane	carril
laps	vueltas
meter	metro
multiplication	multiplicación
represent	representar
tape diagram	diagrama de cinta
times	veces
unknown	desconocido
value	valor



pool

swim

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New Equipment

Use with Problems 1–2.

There were _____ more swim caps than kickboards ordered this year. I know this because . . .

My equation is _____ because . . .

There were _____ more kickboards ordered this year than last year. I know this because . . .

My equations are _____

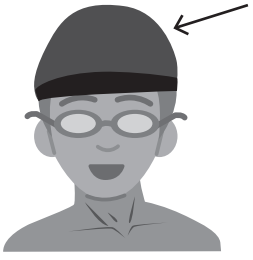
_____ because . . .

I used more than 1 equation because . . .

Word bank	
English	**Español**
answer	respuesta
club	club
combined	conjunto
community center	centro comunitario
difference	diferencia
equipment	equipo
ordered	ordenado
product	producto
sum	suma
tape diagram	diagrama de cinta
times	veces

kickboard

swim



swim cap

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More Swimming Problems

Use with Problems 1–2.

_____ **swam** _____ times as many . . .

_____ **bought** _____ times as many . . .

_____ **practiced** _____ times as many . . .

_____ **ordered** _____ times as many . . .

_____ **used** _____ times as many . . .

crab	dolphin	flippers	jellyfish
kickboard	manta	pull buoy	shark
starfish	swim cap	swim goggles	towels

Word bank	
English	**Español**
buy	comprar
difference	diferencia
group	grupo
lap	vuelta
many	muchos
meter	metro
noun	sustantivo
order	orden
practice	práctica
product	producto
purchase	compra
quotient	cociente
sum	suma
use	usar
verb	verbo

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Name _____ Date _____

Around the Community Center

Use with Problems 4–6.

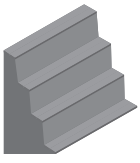
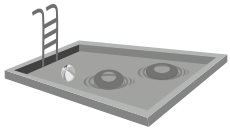
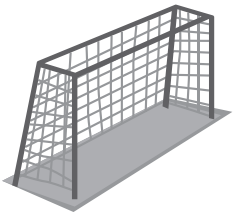
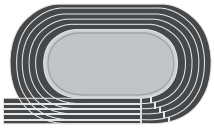
I can convert meters to centimeters by . . .

I can determine the measurement of an item by . . .

The height/length of _____ in meters is _____.

The height/length of _____ in centimeters is _____.

Word bank	
English	**Español**
centimeter	centímetro
community center	centro comunitario
convert	convertir
meter	metro
sprinting	esprintar

baseball	baseball bat	basketball	basketball hoop	 bleacher
 pool	soccer ball	 soccer goal	swim	 track

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Meters and Kilometers

Use with Problems 7–8.

I can convert kilometers to meters by . . .

My strategy is . . .

My thinking is . . .

I can determine the length in meters for any given length in kilometers by . . .

Word bank	
English	**Español**
convert	convertir
length	longitud
long	largo
meter	metro
thinking	razonamiento
times	veces

kilometer
kilómetro

Definition

A metric unit of length equal to 1,000 meters.

Characteristics

- Part of the metric system
- Measures distances
- Longer than a meter

Example

- 1 kilometer = 1,000 meters
- "The distance is about 5 kilometers."
- A 10K race is 10 kilometers

Non-Example

- millimeter
- pound
- inch

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Name _____ Date _____

Card Sort: Ordering Distances

Use with Problems 1–2.

My strategy is . . .

I can order the animals by . . .

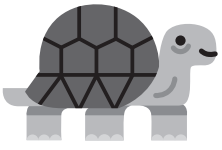
The **shortest** animal is . . .

The **longest** animal is . . .

Lucas walked _____ meters. I know this because . . .

I compared _____ and _____ by . . .

Lucas walked _____ times as far as _____.

camel	fitness tracker	fox
sloth	snail	 tortoise

Word bank	
English	**Español**
animal	animal
centimeter	centímetro
community center	centro comunitario
convert	convertir
day	día
determine	determinar
distance	distancia
kilometer	kilómetro
longest	más largo
meter	metro
shortest	más corto
times	veces
travel	viajar
walk	caminar

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Name _____ Date _____

Comparing Distances

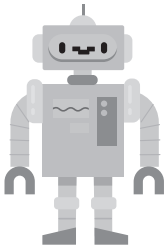
Use with Activity 2.

Chiquita needs to walk _____ **feet** because . . .

Chiquita needs to walk _____ **inches** because . . .

The relationship between feet and inches is . . .

The relationship between feet and yards is . . .

chick	flag	 robot

Word bank	
English	**Español**
convert	convertir
distance	distancia
foot	pie
greater	mayor que
inch	pulgada
walk	caminar

yard
yarda

Definition

A unit of linear measurement equal to 3 feet.

Characteristics

- Used to measure length or distance
- 3 feet or 36 inches

Example

- 100-yard dash
- The swimming pool is 25 yards

Non-Example

- pound (weight)
- cup (liquids)

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Name _____ Date _____

Don't Let the Dogs Out

Use with Activity 1.

The **perimeter** is _____ yards. I know this because . . .

The **length** is _____ yards. I know

this because . . .

The strategies are **similar** because . . .

The strategies are **different** because . . .

My strategy for determining the perimeter is . . .

I can use multiplication to determine the perimeter by . . .

Word bank	
English	**Español**
determine	determinar
length	longitud
multiplication	multiplicación
perimeter	perímetro
strategy	estrategia
times	veces
width	ancho
yard	yarda

dog

fence

park

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Name _____ Date _____

How Much Paint?

Use with Activity 1.

Clue card _____ is important for solving the problem because . . .

We can use Clue card _____ to determine . . .

If _____, then _____ because . . .

Can _____ is _____ milliliters. I know this because . . .

Word bank	
English	**Español**
class	clase
community center	centro comunitario
determine	determinar
equivalent	equivalente
liter	litro

paint can

milliliter
mililitro

Definition

A unit of measurement for liquid volume that is equal to 1 thousandth of a liter.

Characteristics

- Part of the metric system
- Measures liquid
- Smaller than a liter

Example

- The juice box holds 200 milliliters (mL).
- The water bottle holds 500 milliliters (mL).

Non-Example

- pound
- ounce
- liter
- yard

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Name _____ Date _____

Comparing Animal Weights

Use with Problems 1 and 2.

The **lightest** animal is the _____.
I know this because . . .

The **heaviest** animal is _____.
I know this because . . .

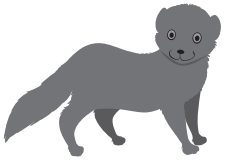
_____ is **lighter** than _____ because . . .

_____ is **heavier** than _____ because . . .

I **agree** with you because . . .

I **disagree** with you because . . .

Word bank	
English	**Español**
compare	comparar
convert	convertir
gram	gramo
heaviest	más pesado
kilogram	kilogramo
lightest	más ligero
riddle	adivinanza
weight	peso

cheetah	elephant	gazelle	giraffe
lemur	lion	 mongoose	rabbit

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Name _____ Date _____

Grocery Shopping

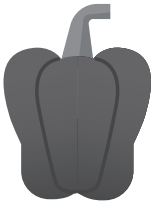
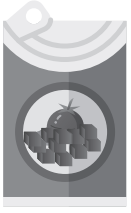
Use with Problem 2.

Lucas _____ have enough money to buy all the ingredients for the chili.
(does/does not)

I know this because . . .

Lucas needs $_____ to buy the ingredients he needs.

Word bank	
English	**Español**
convert	convertir
grocery store	tienda de comestibles
ingredient	ingrediente
money	dinero
ounce	onza
pound	libra
shopping	compras
weight	peso

beans	 bell pepper	carrot	chili
 diced tomatoes	green chile	onion	tomato paste

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Name _____ Date _____

Tricky Timers

Use with Activity 1.

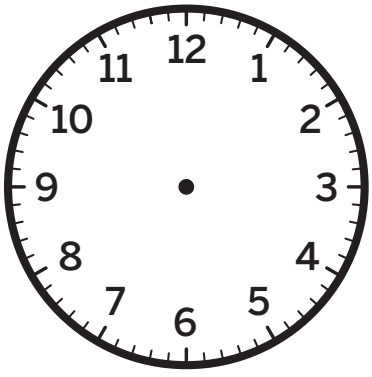
Lucas should set his timer for _____ **minutes** because . . .

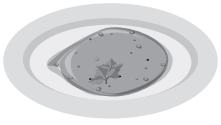
Lucas should set his timer for _____ **seconds** because . . .

I can determine the number of **minutes** for any number of **hours** by . . .

I can determine the number of **seconds** for any number of **minutes** by . . .

Word bank	
English	**Español**
convert	convertir
cook	cocinar
hour	hora
minute	minuto
recipe	receta
second	segundo
time	tiempo
timer	temporizador



		
chili	omelette	pizza

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Name _____ Date _____

Would You Rather?

Use with Activity 1.

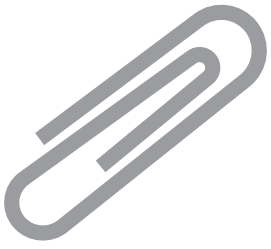
I would rather have _____ because . . .

I want **more** _____, so I would rather have . . .

I want **less** _____, so I would rather have . . .

I know _____ because . . .

number cube



paper clip

Word bank	
English	**Español**
compare	comprarar
convert	convertir
feet	pies
hour	hora
kilometer	kilómetro
liter	litro
measurement	medición
meter	metro
millimeter	mililitro
minute	minuto
ounce	onza
pound	libra
rather	preferir
second	segundo
time	tiempo
yard	yarda

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Vocabulary Cards, Unit 6

Directions: Make enough copies so that each student receives one card for each term. Pre-cut the cards and distribute them during the lesson(s) in which the term is introduced.

partial products

The result of multiplying the parts of 2 numbers separately. When added together, the sum is the total product.

Vocabulary Cards, Unit 6 · Lesson 3

partial quotients

Parts of the answer to a division problem. When added together, the sum is the total quotient.

Vocabulary Cards, Unit 6 · Lesson 11

remainder

The leftover amount when 1 more whole group of the divisor cannot be made in a division problem. The remainder is less than the divisor.

Vocabulary Cards, Unit 6 · Lesson 17

partial products

The result of multiplying the parts of 2 numbers separately. When added together, the sum is the total product.

Vocabulary Cards, Unit 6 · Lesson 3

partial quotients

Parts of the answer to a division problem. When added together, the sum is the total quotient.

Vocabulary Cards, Unit 6 · Lesson 11

remainder

The leftover amount when 1 more whole group of the divisor cannot be made in a division problem. The remainder is less than the divisor.

Vocabulary Cards, Unit 6 · Lesson 17

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Name _____ Date _____

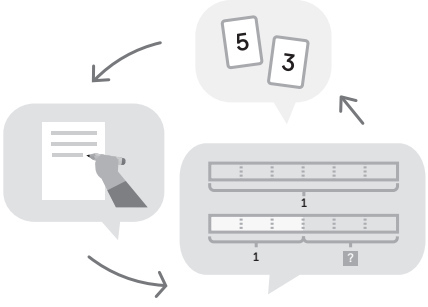
Ways to be a Mathematician
Formas de ser matemático/ matemática

1 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.

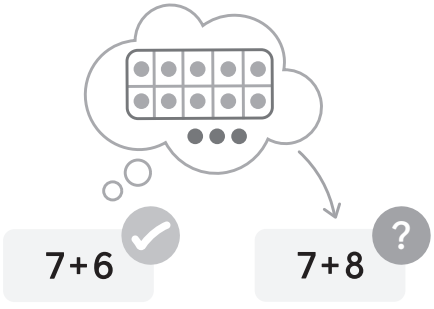
2 I can use numbers, words, and diagrams to make sense of math ideas and situations.

Puedo usar números, palabras y diagramas para entender ideas y situaciones matemáticas.



3 I look for strategies that I can apply to new problems.

Busco estrategias que pueda aplicar a nuevos problemas.



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Name _____ Date _____

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 . . .

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Name _____ Date _____

How Many Flowers?

Use with Problems 1 and 2.

Maile used _____ flowers for all the leis.
I know this because . . .

I used the _____ strategy because . . .

First, I . . .

Then, I . . .

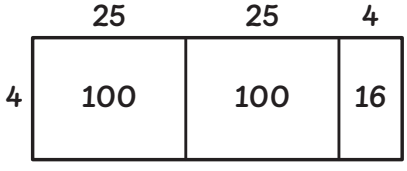
Last, I . . .

Word bank	
English	**Español**
decompose	descomponer
Distributive Property	Propiedad Distributiva
ones	unidades
place value	valor posicional
tens	decenas

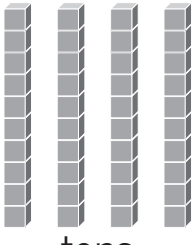
flowers

lei

Strategies



area diagram



tens

ones

base-ten blocks

___ + ___ + ___ + ___
= ___

repeated addition

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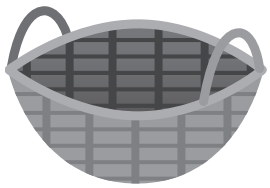
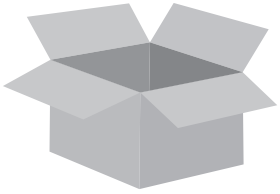
Name _____ Date _____

Flowers for the Workshop

Use with Problems 1–3.

 basket	 box	flowers	lei

Maile has_____ total flowers for the workshop. I know this because . . .

There are _____ total flowers in the shipment. I know this because . . .

I decomposed factors to help me multiply by . . .

_____ is similar because . . .

_____ is different because . . .

Word bank	
English	**Español**
decompose	descomponer
expanded form	forma expandida
organize	organizar
shipment	envío
workshop	taller

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Name _____ Date _____

Flowers for the Workshop (continued)

partial products
productos parciales

Definition

The result of multiplying the parts of 2 numbers separately and when added together equals the total product.

Characteristics

- Used in multiplication
- Breaks apart numbers

Example

$23 \times 7 =$
$20 \times 7 = 140$
$3 \times 7 = 21$
$140 + 21 = 161$

Non-Example

$23 \times 7 = 161$

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Name _____ Date _____

Estimate Then Multiply

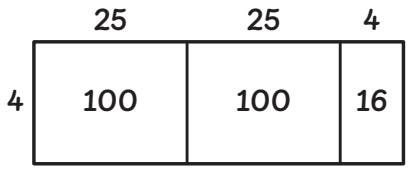
Use with Problems 5–7.

I used estimation to check the reasonableness of my answer by . . .

I found the exact answer by . . .

My strategy was . . .

Word bank	
English	**Español**
answer	respuesta
estimate	estimar
model	modelo
reasonable	razonable

Strategies		
	23 × 7 = 20 × 7 = 140 3 × 7 = 21 140 + 21 = 161	___ + ___ + ___ + ___ = ___
area diagram	partial product	repeated addition

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Name _____ Date _____

Three Cheers for Partial Products

Use with Problem 1.

Their work is **similar** because . . .

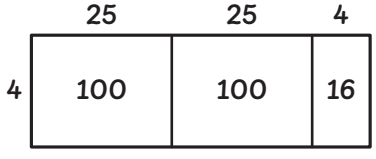
Their work is **different** because . . .

I noticed _____ so . . .

_____ representation makes the most sense because . . .

I would choose to use the _____ strategy because . . .

Word bank	
English	**Español**
decompose	descomponer
equation	ecuación
expression	expresión



area diagram

$23 \times 7 =$

$20 \times 7 = 140$

$3 \times 7 = 21$

$140 + 21 = 161$

partial product

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Name _____ Date _____

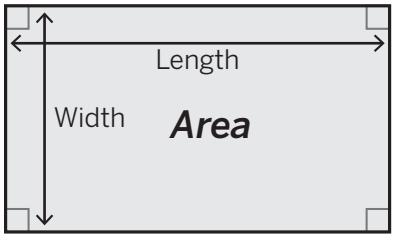
Which Garden Is Larger?

Use with Problem 1.

The _____ flower garden has a larger area.
I know this because . . .

In order to represent our garden, we . . .

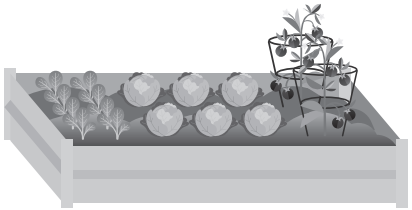
We wrote the expression _____ because . . .



Word bank	
English	**Español**
area	área
calculations	cálculos
diagram	diagrama
display	mostrar
equation	ecuación
feet	pies
justify	justificar
larger	más grande
visual	visual
words	palabras

farm

flowers


garden

lei

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Name _____ Date _____

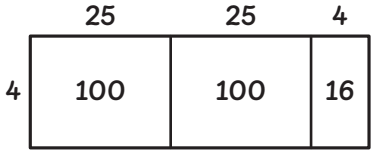
Digits in Disguise

Use with Activity 1.

I can calculate the partial product by . . .

I decomposed the factors this way because . . .

_____'s diagram is more helpful for finding the product. I know this because . . .

Strategies	
 area diagram	$23 \times 7 =$ $20 \times 7 = 140$ $3 \times 7 = 21$ $140 + 21 = 161$ partial product

Word bank	
English	**Español**
calculate	calcular
decompose	descomponer
diagram	diagrama
expression	expresión
factor	factor
helpful	útil
multiply	multiplicar
part	parte
point	punto

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Name _____ Date _____

Compare and Complete

Use with Problems 1–3.

_____ and _____'s strategies are **similar** because . . .

_____ and _____'s strategies are **different** because . . .

_____'s work makes the most sense to me because . . .

I determined the product by . . .

My strategy was _____. I chose this because . . .

Word bank	
English	**Español**
area diagram	diagrama de área
decompose	descomponer
equation	ecuación
expression	expresión
factor	factor
multiply	multiplicar
partial products	productos parciales
product	producto
strategy	estrategia

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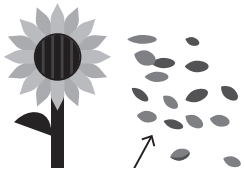
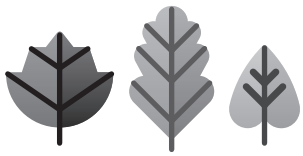
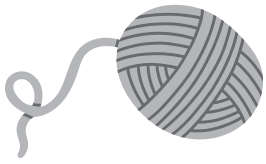
Name _____ Date _____

Supplies for a Workshop

Use with Problems 1–2.

Supplies for lei			
			
flower petals	leaves	lei	twine

Maile will need _____ inches of **twine** to make 7 adult lei.

Maile will need _____ **leaves** to make 7 adult lei.

Maile will need _____ **flower petals** to make 7 adult lei.

Maile will need _____ inches of **twine** for 12 child lei.

Maile will need _____ **leaves** to make 12 child lei.

Maile will need _____ **flower petals** to make 12 child lei.

My strategy was . . .

I solved the problem this way because . . .

Word bank	
English	**Español**
adult	adulto
amount	cantidad
area diagram	diagrama de área
child	niño
decompose	descomponer
inches	pulgadas
material	material
partial product	producto parcial
workshop	taller

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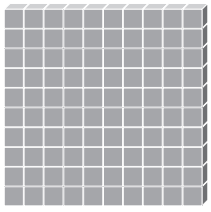
Name _____ Date _____

Orchids for Lei

Use with Problems 1–2.

Supplies for lei		
flowers	lei	orchid

Word bank	
English	Español
dividend	dividendo
divisor	divisor
factor	factor
quotient	cociente

Base-ten blocks		
		
hundreds	tens	ones

Maile should use _____ orchids for each lei.

I know this because . . .

I solved the problem by . . .

My/My partner's strategy was . . .

Our strategies were _____ because . . .
(similar/different)

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Name _____ Date _____

Awesome Area

Use with Activity 1.

I used _____ strategy to determine the length of the rectangles.

The **dividend** in the area model is represented by . . .

The **quotient** in the area model is represented by . . .

Area models help me divide multi-digit numbers because . . .

Word bank	
English	**Español**
area	área
dividend	dividendo
divisor	divisor
factor	factor
length	longitud
width	ancho

partial quotients
cocientes parciales

Definition

Parts of the answer to a division problem. When added together, the sum is the total quotient.

Characteristics

- Used in division
- Each chunk is part of the quotient.

Example

125 ÷ 5
5 × 20 = 100
5 × 5 = 25
20 + 5 = 25

Non-Example

125 ÷ 5 = 25

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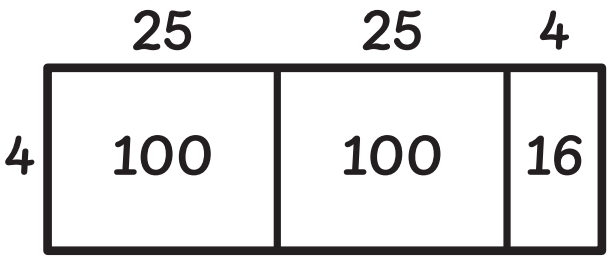
Name _____ Date _____

Two Representations

Use with Problems 1–3.



Word bank	
English	**Español**
determine	determinar
dividend	dividendo
divisor	divisor
equation	ecuación
partial quotients	cocientes parciales
representation	representación

The representations are **similar** because . . .

The representations are **different** because . . .

I can use each representation to determine the final quotient by . . .

I used _____ strategy to find the quotient because . . .

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Name _____ Date _____

What's the Next Step?

Use with Problems 1–2.

I chose _____ as the first step because . . .

The first step impacted the variety of products because . . .

The number of steps varied according to . . .

This makes sense because . . .

Our methods are **similar** because . . .

Our methods are **different** because . . .

The final quotient in each method is . . .

My final quotient was _____. I got this by . . .

Word bank	
English	**Español**
compare	comparar
contrast	contrastar
decompose	descomponer
dividend	dividendo
divisor	divisor
evaluate	evaluar
factor	factor
method	método
partial product	producto parcial
partial quotient	cociente parcial

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Name _____ Date _____

Two Ways

Use with Problems 1–3.

Priya's and Diego's work is **similar** because . . .

Priya's and Diego's work is **different** because . . .

I noticed in **Priya's** work . . .

I noticed in **Diego's** work . . .

The quotients are the same because . . .

Using Diego's strategy, I know the quotient for 228 ÷ 4 is _____. I know this because . . .

The quotient for 3372 ÷ 6 is _____.

My strategy to find this quotient was . . .

Word bank	
English	**Español**
decompose	descomponer
dividend	dividendo
divisor	divisor
equation	ecuación
evaluate	evaluar
expression	expresión
method	método
partial quotient	cociente parcial
quotient	cociente
strategy	estrategia

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Name _____ Date _____

Estimate and Divide

Use with Problems 4–6.

My estimate is . . .

I estimated the quotient by . . .

My exact answer is . . .

I can use my estimate to check the reasonableness of my answer by . . .

I know my answer is reasonable because . . .

If my answer is not reasonable, I can . . .

Word bank	
English	**Español**
answer	respuesta
check	verificar
close	cerca
determine	determinar
dividend	dividendo
divisor	divisor
estimate	estimación
exact	exacto
quotient	cociente
reasonable	razonable

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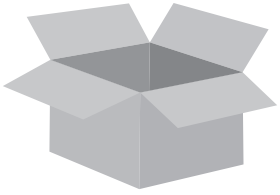
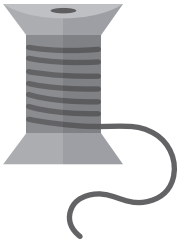
Name _____ Date _____

Creating Your Own Lei Shop Problems

Use with Problems 1–2.

Objects			
			
box	lei	orchid	string

Problem 1
_____ had _____ _____. Then, they . . . *(person)* *(dividend)* *(objects)* How many _____ . . .? *(objects)*

Problem 2
_____ had _____ _____. Then, they . . . *(person)* *(dividend)* *(objects)* How many _____ . . .? *(objects)*

Word bank						
English	dividend	divisor	equation	object	pair	quotient
Español	dividendo	divisor	ecuación	objeto	par	cociente

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Name _____ Date _____

Packing and Shipping

Use with Problem 6.

Problem _____ has a remainder of _____.

The remainder represents . . .

I used the remainder to _____ because . . .

I did not use the remainder because . . .

Word bank					
English	divide	dividend	divisor	equal groups	quotient
Español	dividir	dividendo	divisor	grupos iguales	cociente

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Packing and Shipping (continued)

remainder
resto

Definition

The leftover amount when another whole group of the divisor cannot be made in a division problem.

Characteristics

Should be smaller than the divisor in a division problem

Example

$24 \div 5 = ?$
$24 \div 5 = 4$ with a remainder of 4

Non-Example

$24 \div 4 = ?$
$24 \div 5 = 6$

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How Many Teams?

Use with Problems 2–4.

Interpreting remainders strategies		
10 ÷ 4 = 2 with a remainder of 2		
add 1 to the quotient 2 + 1 = 3	drop the remainder 2	distribute the remainder 2 ½ (fraction depends on divisor)

Problem _____ has a remainder of _____.

The remainder represents . . .

I used the remainder to . . .

I had to add 1 to the quotient to get the final answer because . . .

I had to _____ the remainder to get the final answer because . . .
(drop / distribute)

Word bank							
English	add	distribute	divide	drop	equal groups	quotient	remainder
Español	sumar	distribuir	dividir	descartar	grupos iguales	cociente	resto

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Name _____ Date _____

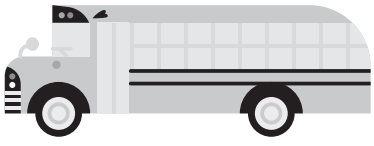
Division Decisions

Use with Activity 1.

Interpreting remainders strategies		
10 ÷ 4 = 2 with a remainder of 2		
add 1 to the quotient 2 + 1 = 3	drop the remainder 2	distribute the remainder 2 ½ (fraction depends on divisor)

The problems are **similar** because . . .

The problems are **different** because . . .



bus

van

The remainder represents . . .

I had to add 1 to the quotient to get the final answer because . . .

I had to _____ the remainder to get the final answer because . . .
(drop/distribute)

Word bank							
English	add	distribute	divide	drop	equal groups	quotient	remainder
Español	sumar	distribuir	dividir	descartar	grupos iguales	cociente	resto

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Shipping Supplies

Use with Problem 3.

Key words	
addition **+**	**subtraction** **−**
total in all altogether combined	left over fewer remain how many more
multiplication **×**	**division** **÷**
each per times equal groups	each split share equal groups

I used _____ to solve the problem because . . .

Our strategies are similar because . . .

Our strategies are different because . . .

Word bank	
English	**Español**
factor	factor
multiple	múltiplo

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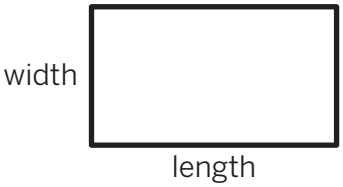
Name _____ Date _____

Creating a Banner

Use with Problem 3.



Area	Perimeter
length × width = area	length + width + length + width = perimeter

First, I _____ because . . .

Then, I _____ because . . .

The **area** formula helped me determine . . .

The **perimeter** formula helped me determine . . .

I converted _____ to _____ because . . .

Our strategies are **similar** because . . .

Our strategies are **different** because . . .

Word bank	
English	**Español**
add	sumar
area	área
convert	convertir
divide	dividir
formula	fórmula
multiply	multiplicar
perimeter	perímetro
subtract	sustraer

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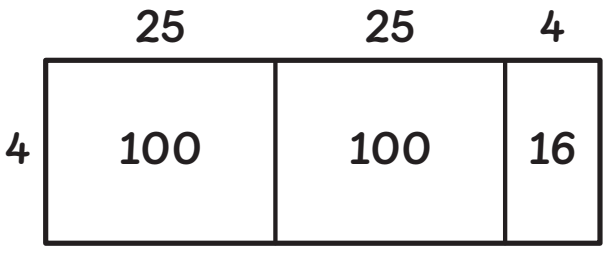
Name _____ Date _____

More Lei, More Problems

Use with Problems 1–3.

Strategies

area model



partial product

$23 \times 7 =$

$20 \times 7 = 140$

$3 \times 7 = 21$

$140 + 21 = 161$

multiplication

$$\begin{array}{r} {\scriptstyle 2}\,23 \\ \times\,7 \\ \hline 161 \end{array}$$

division

$$\begin{array}{r} 23 \\ 7\overline{)161} \\ -\,14 \\ \hline 21 \\ -\,21 \\ \hline 0 \end{array}$$

standard algorithm

partial quotient

$161 \div 7 =$

$140 \div 7 = 20$

$21 \div 7 = 3$

$20 + 3 = 23$

I used _____ to solve the problem because . . .

Our strategies are **similar** because . . .

Our strategies are **different** because . . .

Word bank	
English	**Español**
add	sumar
divide	dividir
multiply	multiplicar
subtract	sustraer

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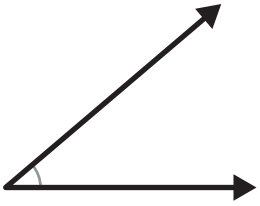
Vocabulary Cards, Unit 7

Directions: Make enough copies so that each student receives one card for each term. Pre-cut the cards and distribute them during the lesson(s) in which the term is introduced

acute angle

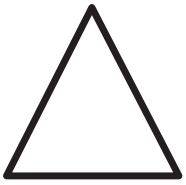
An angle with a measure of less than 90 degrees.



Vocabulary Cards, Unit 7 · Lesson 14

acute triangle

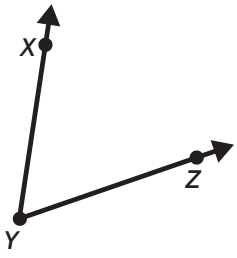
A triangle with 3 acute angles.



Vocabulary Cards, Unit 7 · Lesson 14

angle

A geometric figure made up of 2 rays that share the same endpoint.



Vocabulary Cards, Unit 7 · Lesson 5

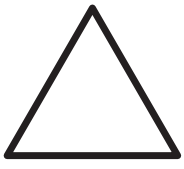
degree

One standard unit for measuring the size of an angle.

Vocabulary Cards, Unit 7 · Lesson 7

equilateral triangle

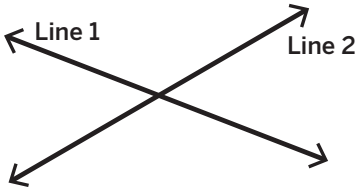
A triangle with 3 equal sides.



Vocabulary Cards, Unit 7 · Lesson 15

intersecting lines

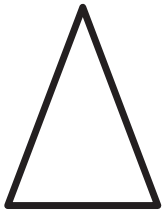
Lines that cross.



Vocabulary Cards, Unit 7 · Lesson 3

isosceles triangle

A triangle with exactly 2 equal sides.



Vocabulary Cards, Unit 7 · Lesson 15

line

A straight mark, sometimes connecting a set of points arranged side by side, that extends forever in both directions.

Vocabulary Cards, Unit 7 · Lesson 2

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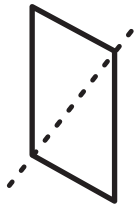
Vocabulary Cards, Unit 7

line of symmetry

A line that splits a figure into 2 matching halves that perfectly mirror each other on both sides of the line.



Vocabulary Cards, Unit 7 · Lesson 17

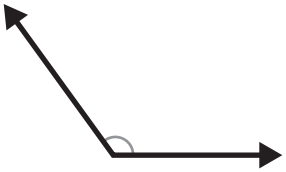
line segment

A part of a line with 2 endpoints.

Vocabulary Cards, Unit 7 · Lesson 2

obtuse angle

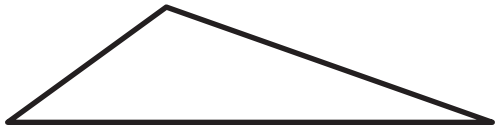
An angle with a measure greater than 90 degrees but less than 180 degrees.



Vocabulary Cards, Unit 7 · Lesson 17

obtuse triangle

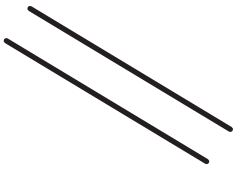
A triangle with 1 obtuse angle.



Vocabulary Cards, Unit 7 · Lesson 14

parallel lines

Lines that never cross or intersect.



Vocabulary Cards, Unit 7 · Lesson 3

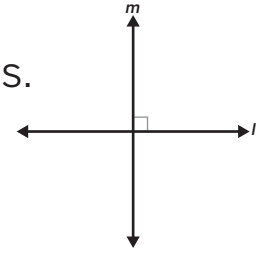
parallelogram

A quadrilateral with 2 pairs of parallel sides.

Vocabulary Cards, Unit 7 · Lesson 16

perpendicular lines

Lines that intersect creating right angles.



Vocabulary Cards, Unit 7 · Lesson 10

point

A location in space, indicated by a dot.

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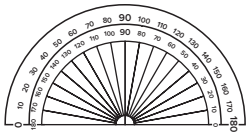
Vocabulary Cards, Unit 7

protractor

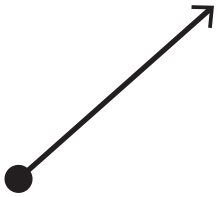
A tool for measuring the size of an angle in degrees.



Vocabulary Cards, Unit 7 · Lesson 8

ray

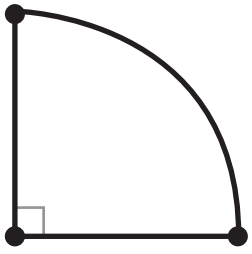
A part of a line with 1 endpoint that extends forever in one direction.



Vocabulary Cards, Unit 7 · Lesson 2

right angle

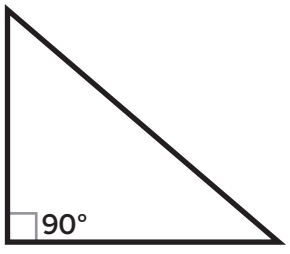
An angle that measures 90 degrees.



Vocabulary Cards, Unit 7 · Lesson 9

right triangle

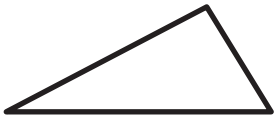
A triangle with 1 right angle.



Vocabulary Cards, Unit 7 · Lesson 14

scalene triangle

A triangle with no sides that are equal.



Vocabulary Cards, Unit 7 · Lesson 15

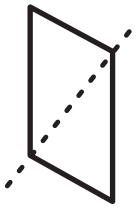
straight angle

An angle that measures 180 degrees.

Vocabulary Cards, Unit 7 · Lesson 9

symmetric

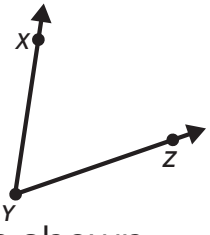
A figure that can be split by a line into 2 matching halves that perfectly mirror each other on both sides of the line.



Vocabulary Cards, Unit 7 · Lesson 17

vertex (of an angle)

The shared endpoint where the 2 rays forming an angle intersect. Point *Y* is the vertex of the angle shown.



Vocabulary Cards, Unit 7 · Lesson 5

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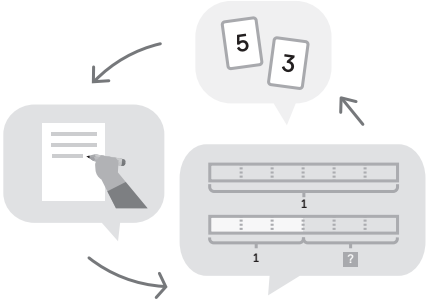
Ways to be a Mathematician
Formas de ser matemático/ matemática

1 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.

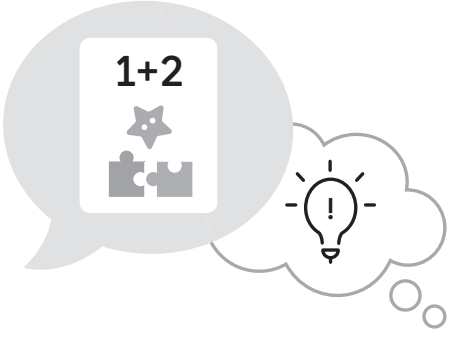
2 I can use numbers, words, and diagrams to make sense of math ideas and situations.

Puedo usar números, palabras y diagramas para entender ideas y situaciones matemáticas.



3 I can work carefully and try to be clear when I share my ideas.

Puedo trabajar con cuidado y tratar de ser claro/clara cuando comparto mis ideas.



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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 . . .

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Making Some Shapes

Use with Problem 6.

line	line segment	point	ray

My partner drew _____ using . . .

I drew _____ using . . .

Word bank	
English	**Español**
drawing	dibujo
shape	figura

I know my partner used _____ in their drawing because . . .
(lines/line segments/rays)

I know this is a _____ because . . .
(line/line segment/ray)

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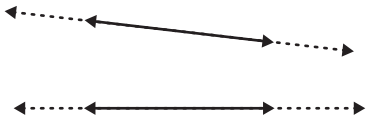
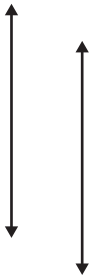
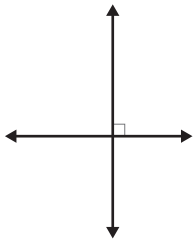
Name _____ Date _____

To Cross or Not to Cross

Use with Problem 9.

 intersecting lines	 parallel lines	 perpendicular lines

I notice that the quadrilateral . . .

The line segments *RS* and *TU* _____ *(are/are not)* parallel. I know this because . . .

The line segments *RT* and *SU* _____ *(are/are not)* parallel. I know this because . . .

I know _____ lines **will** intersect because . . .

I know _____ lines **will never** intersect because . . .

Word bank	
English	**Español**
attribute	atributo
horizontal	horizontal
label	rótulo
line	línea
line segment	segmento de recta
opposite	opuesto
point	punto
quadrilateral	cuadrilátero
rectangle	rectángulo
vertex	vértice
vertical	vertical

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Name _____ Date _____

Geometry Town

Use with Problem 1.

My town has . . .

My map has . . .

I used geometric figures in my map by . . .

The geometric figures I used were . . .

Our maps are **similar** because . . .

Our maps are **different** because . . .

Word bank	
English	**Español**
create	crear
intersecting	intersecando
label	rótulo
length	longitud
line	recta
line segment	segmento de recta
parallel	paralelo
perpendicular	perpendicular
point	punto
ray	semirrecta

map	road	town

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Name _____ Date _____

Name that Angle

Use with Problems 2–7.

I notice that . . .

The name of this angle is _____ because . . .

Another name for this angle is _____ because . . .

Word bank	
English	Español
point	punto
ray	semirrecta
vertex	vértice

Definition

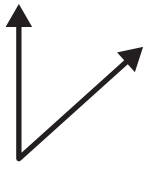
A geometric figure made up of two rays that share the same endpoint.

Characteristics

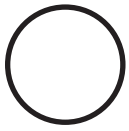
- Can be acute, obtuse or right
- Has two rays meeting a point
- Measured in degrees

angle
ángulo

Example



Non-Example



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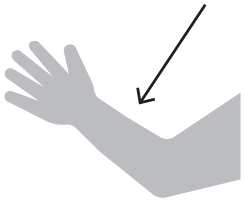
Name _____ Date _____

Angles on a Clock

Use with Problems 1–6.



arm

clock

Word bank	
English	**Español**
angle	ángulo
point	punto
ray	semirrecta
rotation	rotación
turn	virar
vertex	vértice

I can use my arms to represent the angle by . . .

The angles are **similar** because . . .

The angles are **different** because . . .

I notice the angles . . .

When the angle **rotated**, I noticed that . . .

When the angle **turned**, I noticed that . . .

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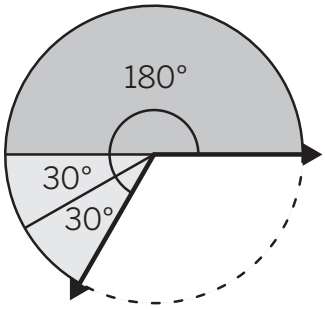
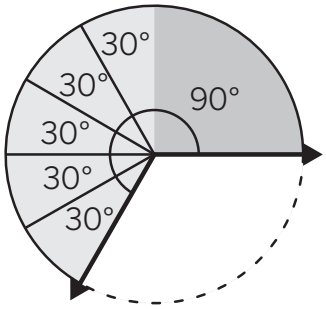
Additive Angles

Use with Activity 2.

Priya's angle



Han's angle



My strategy to measure the angle is . . .

I know the measurement of the unknown angle is _____ degrees because . . .

_____ strategy was . . .
(Priya's/Han's)

The strategies are _____ because . . .
(similar/different)

Word bank	
English	**Español**
adjacent angle	ángulo adyacente
angle	ángulo
challenge	desafío
measure	medida
unknown	desconocido
vertex	vértice

Definition

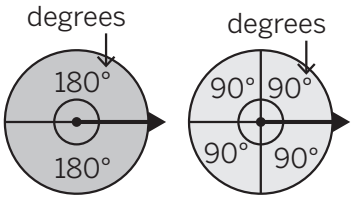
A unit for measuring the size of an angle.

degree
grado

Characteristics

- Used to show the size of an angle
- A full circle is 360°.
- A right angle is 90°.

Example



Non-Example

- inches
- ounces
- pounds
- kilometers

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Name _____ Date _____

Using a Protractor

Use with Problems 1–3.

1° is shown on the protractor by . . .

The protractor shows a _____ turn.

The largest angle you can measure with a protractor is _____ degrees.

The measure of the angle on the protractor is _____ degrees.

I determined the measurement of the angle by . . .

Word bank	
English	**Español**
degree	grado
measure	medida
ray	semirrecta
tick	marca
vertex	vértice

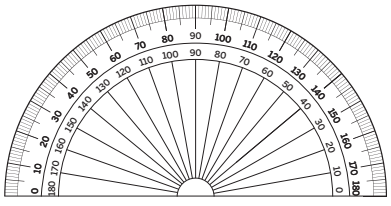
Definition

A tool for measuring the size of an angle in degrees.

Characteristics

- marked with numbers 0° to 180°
- has a point (a hole) to line up with the vertex of an angle
- shaped like a half circle

protractor
transportador



Example

- ruler
- thermometer

Non-Example

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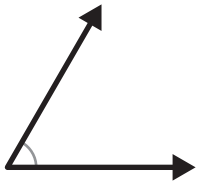
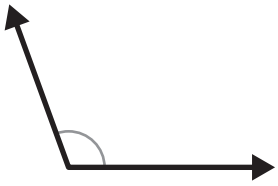
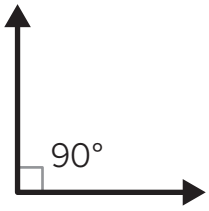
Measuring Angles

Use with Problem 10.

Angles			
			
acute	obtuse	right	straight

We measured the angle _____ because . . .
(the same/differently)

I know the angle is _____ because . . .
(acute/obtuse/right/straight)

Word bank				
English	measure	protractor	ray	vertex
Español	medir	transportador	semirrecta	vértice

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Name _____ Date _____

Drawing Angles

Use with Problems 1–4.

I drew an angle starting at point *M* by . . .

I drew an _____ angle by . . .
(acute/obtuse)

I know my angle is

_____ because . . .
(acute/obtuse)

The angle measures _____ degrees.

My partner's _____ angle
(acute/obtuse
measured _____.

My angles are _____ to my
(similar/different)

partner because . . .

Word bank	
English	**Español**
acute	agudo
angle	ángulo
drawing	dibujo
measurement	medida
obtuse	obtuso
point	punto
protractor	transportador
ray	semirrecta

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Name _____ Date _____

Angle Mystery

Use with Activity 1.

map	treasure

Word bank					
English	**Español**	**English**	**Español**	**English**	**Español**
adjacent	adyacente	equation	ecuación	protractor	transportador
angle	ángulo	larger	más grande	smaller	más pequeño
degree	grado	mystery	misterio		

I know the measurement of Angle _____ is _____ degrees because . . .

The 2 smaller angles are related to the larger angle because . . .

My equations are . . .

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Card Sort: Shapes

Use with Problems 1–4.

My categories are . . .

I sorted the shapes by _____ because . . .

Card _____ is in the category _____ because . . .

This category includes _____ because . . .

The other group's categories _____ *(do/do not)* make sense to me because . . .

I suggest . . .

Word bank	
English	**Español**
angle	ángulo
attribute	atributo
category	categoría
parallel	paralelo
perpendicular	perpendicular
shape	figura
side	lado
sort	clasificar

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Name _____ Date _____

Searching for Triangles

Use with Problems 3–4.

I identified the triangle by . . .

Triangle _____ is a(n) _____ triangle because . . .

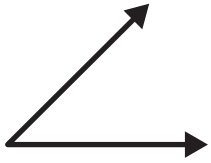
I know this is an **acute** triangle because . . .

I know this is an **obtuse** triangle because . . .

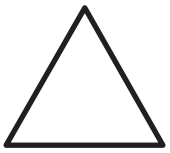
I know this is a **right** triangle because . . .

I know my labels are correct because . . .

Word bank	
English	**Español**
acute	agudo
acute triangle	triángulo agudo
greater than	mayor que
less than	menor que
obtuse	obtuso
obtuse triangle	triángulo obtuso
protractor	transportador
right angle	ángulo recto
right triangle	triángulo rectángulo



angle



triangle

cave

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Name _____ Date _____

Searching for Triangles

Use with Problems 3–4.

I identified the triangle by . . .

Triangle _____ is a(n) _____ triangle because . . .

I know this is an **equilateral** triangle because . . .

I know this is an **isosceles** triangle because . . .

I know this is a **scalene** triangle because . . .

I know my labels are correct because . . .

Word bank					
English	**Español**	**English**	**Español**	**English**	**Español**
different	diferente	isosceles triangle	triángulo isósceles	scalene triangle	triángulo escaleno
equal	igual	length	longitud	side	lado
equilateral triangle	triángulo equilátero	same	mismo		

cave

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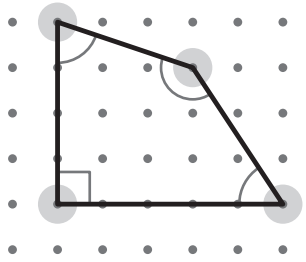
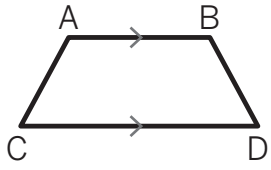
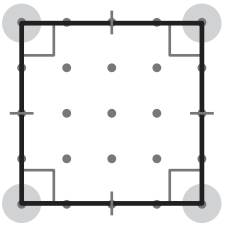
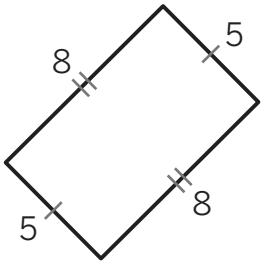
Quality Quadrilaterals

Use with Activity 1.

Attributes			
			
angle size	parallel sides	right angle	side lengths

I know this shape is a _____ because . . .
(rectangle/rhombus)

Rectangles and rhombuses are similar because . . .

I know that both Rizzo and Buster can eat my shape because . . .

Word bank					
English	**Español**	**English**	**Español**	**English**	**Español**
breakfast	desayuno	pair	par	rhombus	rombo
eat	comer	parallelogram	paralelogramo		
equal	igual	rectangle	réctangulo		

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Name _____ Date _____

Perfect Matches

Use with Problem 1.

A line of symmetry is . . .

I notice . . .

This shape _____ have a
(does/does not)
line of because . . .

When I fold the _____ along the line of symmetry, both sides are _____.

Word bank	
English	**Español**
category	categoría
cut	cortar
diagram	diagrama
equal	igual
folding line	línea de plegado
halves	mitades
mirror	reflejar
shape	figura
split	dividir

Definition

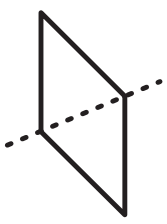
A figure that can be split by a line into 2 matching halves that perfectly mirror each other on both sides of the line.

Characteristics

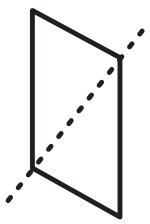
The line that splits the figure is called the line of symmetry.

symmetric
simétrico

Example



Non-Example



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Symmetry Quest

Use with Activity 1.

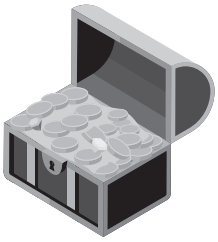
I know the figure I created is symmetric because . . .

A figure is symmetric when . . .

I knew to draw the missing line because . . .

I _____ with Kayla because . . .
(agree/disagree)

Word bank	
English	**Español**
fold	doblar
figure	figura
line of symmetry	línea de simetría
point	punto
symmetric	simétrico



treasure

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What Was the Original Shape?

Use with Problems 5–6.

I found the length of all the sides of the figures by . . .

I used symmetry to help determine the measurement of the missing side lengths by . . .

I found the measurement of each angle by . . .

I used symmetry to help me determine the measurement of the missing angles by . . .

Word bank	
English	**Español**
angle	ángulo
degree	grado
diagram	diagrama
fold	doblar
half	mitad
length	longitud
line of symmetry	línea de simetría
measurement	medida
mirror	reflejar
original	original
precise	preciso
symmetric	simétrico

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