



SECOND EDITION **STUDENT BOOK**







Bridges in Mathematics Second Edition Grade 2 Student Book

The Bridges in Mathematics Grade 2 package consists of:

Bridges in Mathematics Grade 2 Teachers Guide Units 1–8

Bridges in Mathematics Grade 2 Assessment Guide

 ${\it Bridges in Mathematics Grade 2 Teacher Masters}$

Bridges in Mathematics Grade 2 Student Book

Bridges in Mathematics Grade 2 Home Connections Volumes 1 & 2

Bridges in Mathematics Grade 2 Teacher Masters Answer Key

Bridges in Mathematics Grade 2 Student Book Answer Key

Bridges in Mathematics Grade 2 Home Connections Answer Key

Bridges in Mathematics Grade 2 Components & Manipulatives

Bridges Educator Site

Work Place Games & Activities

Digital resources noted in italics.

The Math Learning Center, PO Box 12929, Salem, Oregon 97309. Tel 1 (800) 575-8130 www.mathlearningcenter.org

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Bridges in Mathematics is a standards-based K–5 curriculum that provides a unique blend of concept development and skills practice in the context of problem solving. It incorporates Number Corner, a collection of daily skill-building activities for students.

The Math Learning Center is a nonprofit organization serving the education community. Our mission is to inspire and enable individuals to discover and develop their mathematical confidence and ability. We offer innovative and standards-based professional development, curriculum, materials, and resources to support learning and teaching. To find out more, visit us at www.mathlearningcenter.org.

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Number Corner Grade 2 Teachers Guide Volumes 1-3

Number Corner Grade 2 Teacher Masters Answer Key

Number Corner Grade 2 Components & Manipulatives

Number Corner Grade 2 Student Book Answer Key

Number Corner Grade 2 Teacher Masters

Number Corner Grade 2 Student Book

Word Resource Cards

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itle	graph. Include a greater than sign > in one
	observation and a less than sign < in another.

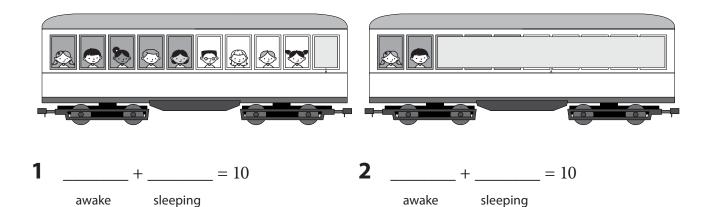
Write 4 observations about your beetle

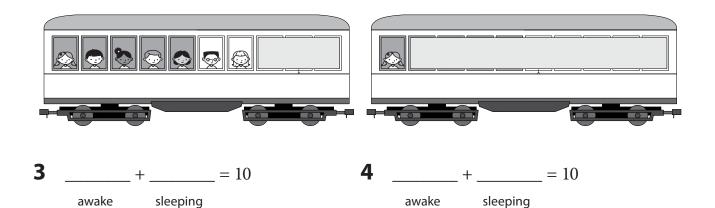
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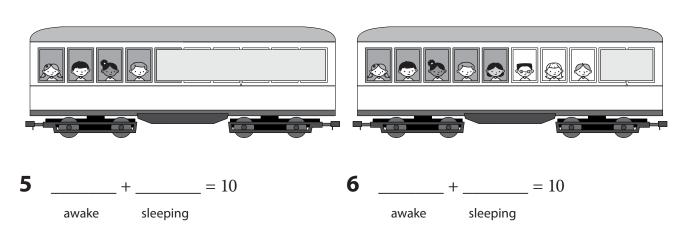
Children on the Train page 1 of 2

Ten children are riding on the train. Some of them have pulled down their shade so they can take a nap. Write an equation to show how many children are awake and how many are taking a nap in each picture.

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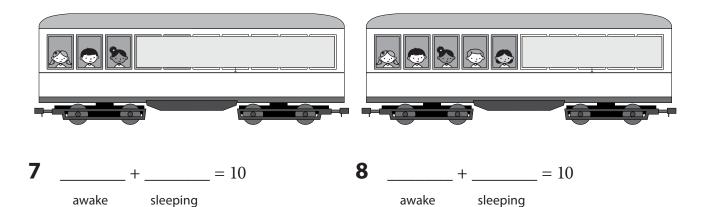


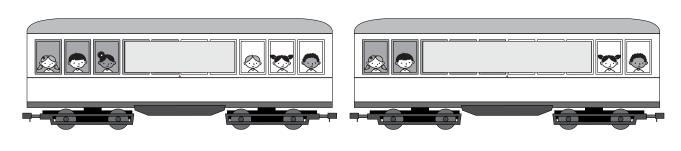


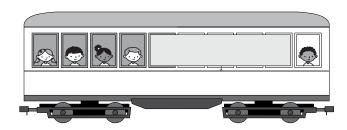
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Children on the Train page 2 of 2







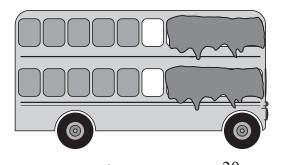
NAME DATE

3

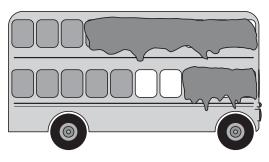
5

Muddy Windows on the Bus

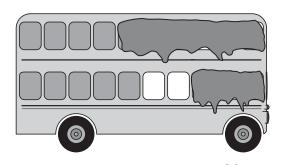
How many windows are covered by mud? Complete the equations.



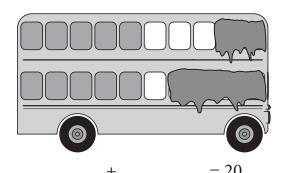
clear windows + muddy windows = 20 windows



clear windows + muddy windows = 20 windows

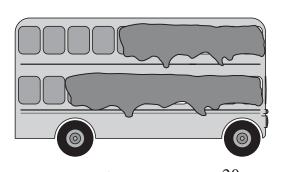


clear windows + muddy windows = 20 windows

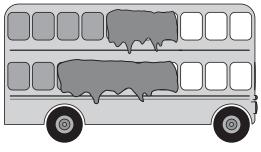


clear windows + muddy windows = 20 windows

4



clear windows + muddy windows = 20 windows



clear muddy



clear muddy



Around the Table page 1 of 2

Find three different ways to seat 8 people at the dinner table. Fill in the blanks to show two equations for each way.

_____+ ____= _____ white plates black plates total plates

round plates square plates total plates

b

_____ + ____ = ____ white plates black plates total plates

____ + ____ = ____ round plates square plates total plates

C

white plates black plates total plates

round plates square plates total plates

Find three different ways to seat 15 people at the dinner table. Fill in the blanks to show two equations for each way.

a white plates black plates total plates

round plates square plates total plates

b _____+ ____= _____ white plates black plates total plates

_____ + ____ = ____ round plates square plates total plates

C white plates black plates total plates

round plates square plates total plates

Find three different ways to seat 12 people at the dinner table. Fill in the blanks to show two equations for each way.

_____+ ____= _____ white plates black plates total plates

_____+ ____ = _____ round plates square plates total plates

b white plates black plates total plates

_____ + ____ = ____ round plates square plates total plates

C white plates black plates total plates round plates square plates total plates

(continued on next page)

NAME

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Around the Table page 2 of 2

Find three different ways to seat 13 people at the dinner table. Fill in the blanks to show two equations for each way.

_____+ ____ = _____ white plates black plates total plates

round plates square plates total plates

b _____ + ____ = ____ white plates black plates total plates

_____+ ____ = _____ round plates square plates total plates

C white plates black plates total plates

____ + ___ = ___ round plates square plates total plates

Find three different ways to seat 11 people at the dinner table. Fill in the blanks to show two equations for each way.

white plates black plates total plates

_____ + ____ = ____ round plates square plates total plates

b _____+ ____ = _____ white plates black plates total plates

_____ + ____ = _____ round plates square plates total plates

_____ + ____ = _____ white plates black plates total plates

_____+ ____= _____ round plates square plates total plates

6 Find three different ways to seat 16 people at the dinner table. Fill in the blanks to show two equations for each way.

_____+ ____= _____ white plates black plates total plates

_____ + ____ = _____ round plates square plates total plates

_____ + ____ = ____ white plates black plates total plates

_____ + ____ = ____ round plates square plates total plates

C _____+ ____= _____ white plates black plates total plates

_____+ ____= _____ round plates square plates total plates

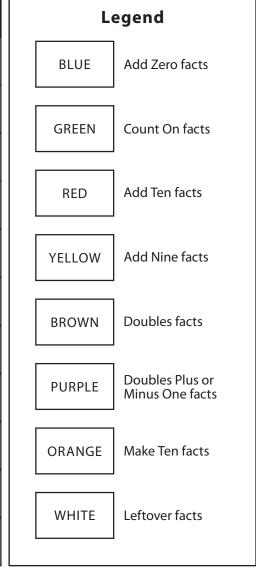
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NAME

Addition Table

+	0	1	2	3	4	5	6	7	8	9	10
0	0	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10	11
2	2	3	4	5	6	7	8	9	10	11	12
3	3	4	5	6	7	8	9	10	11	12	13
4	4	5	6	7	8	9	10	11	12	13	14
5	5	6	7	8	9	10	11	12	13	14	15
6	6	7	8	9	10	11	12	13	14	15	16
7	7	8	9	10	11	12	13	14	15	16	17
8	8	9	10	11	12	13	14	15	16	17	18
9	9	10	11	12	13	14	15	16	17	18	19
10	10	11	12	13	14	15	16	17	18	19	20



Which Strategy? page 1 of 3

1 Put a check in the box next to the strategy you used.

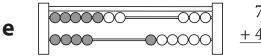
				٨	/ly st	rateg	y wa	S		
		Add Zero	Count On (by 1, 2, or 3)	Add Ten	Add Nine	Doubles	Double Plus or Minus One	Make Ten	Leftover	I just knew it.
ex	4 +3 7						√			
a	7 ••••••••••••••••••••••••••••••••••••									
b	8 + 4									
c	9 +6									
d	6 + 8									

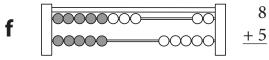
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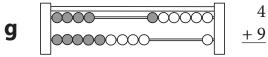
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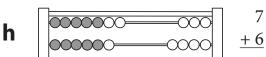
Which Strategy? page 2 of 3

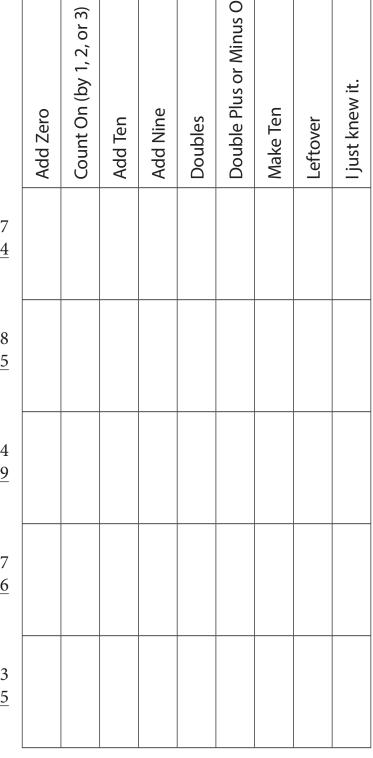
My strategy was							
					ne		











Which Strategy? page 3 of 3

			Λ	/ly sti	rateg	y wa	S			
	Add Zero	Count On (by 1, 2, or 3)	Add Ten	Add Nine	Doubles	Double Plus or Minus One	Make Ten	Leftover	I just knew it.	
9 + 2										
8 										
6 + 4										

Find each sum.

$$7 + 4 =$$

Cups & Beans

Scoop about 50 beans out of one of the containers. Then count them by 10s and 1s to find out exactly how many beans you scooped.

a Record your results:

Cups	Leftover Beans

- How many beans in all? _____
- Circle the sentence that is true.

I have *more* than 50 beans.

I have fewer than 50 beans.

How many more? (How many beans must you take away to get 50?)

= 50

How many fewer? (How many beans must you add to get 50?)

Combine your cups and leftover beans with your partner's. If you have 10 or more left over, make a new cup of 10.

Record your results:

Cups	Leftover Beans

- b How many beans in all? _____
- C Circle the sentence that is true.

We have *more* than 100 beans.

We have *fewer* than 100 beans.

How many fewer? (How many beans must you add to get 100?)

How many *more*? (How many beans must you take away to get 100?)

= 100

NAME | DATE



How Many Tennis Balls? page 1 of 2

There are 10 tennis balls in each bucket. Count by 10s and 1s to find out how many tennis balls there are in each row. Then tell how many more or how many fewer it would take to make the number at the end of the row. You can use the grids at the bottom of each page to help.

Buckets (10 each)	Extra Balls	Total	More or Fewer
1 4 4	8 8 8 8	34	How many more to make 40?
2 🏶 🏝	8 8 8		How many fewer to make 20?
3 4 4 4	888		How many more to make 50?
4 4 4 4 4	8 8		How many fewer to make 50?
5	8 8 8 8 8		How many fewer to make 10?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130

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NAME DATE

How Many Tennis Balls page 2 of 2

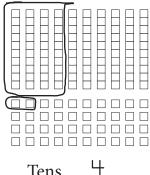
	Buckets (10 each)	Extra Balls	Total	More or Fewer
6		8 8 8 8 8		How many fewer to make 80?
7				How many more to make 60?
8				How many fewer to make 100?
9				How many more to make 125?

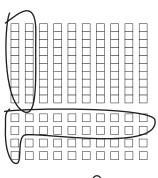
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130

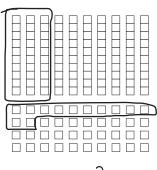
Show Me Base Ten page 1 of 2

Show each number in three different ways. Circle groups of ten and ones. Then fill in the blanks to tell how many tens and ones you used.

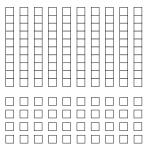
ex forty-two (42)

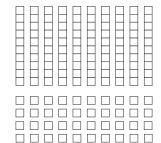


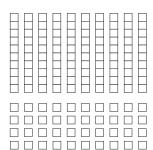




thirty-three (33)





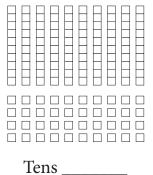


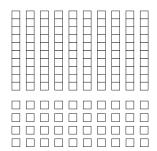
Tens _____ Ones _____

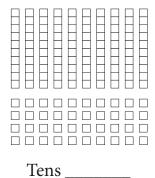
Tens _____ Ones _____

Tens _____ Ones _____

fifty-one (51)







Ones

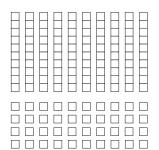
Tens _____ Ones _____

Ones _____

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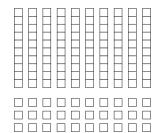
Show Me Base Ten page 2 of 2

3 seventy-five (75)



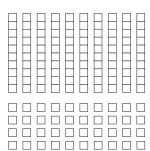
Tens _____

Ones _____



Tens _____

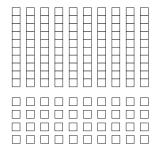
Ones _____



Tens _____

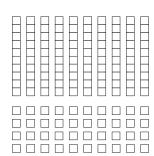
Ones _____

eighty-seven (87)



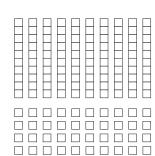
Tens _____

Ones _____



Tens _____

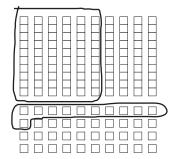
Ones _____



Tens _____

Ones _____

What number is this?

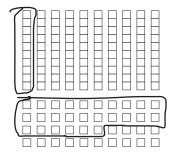


Tens ____

Ones _____

Total _____

What number is this?



Tens ____

Ones _____

Total ____



Base Ten Riddles

Use your base ten pieces to solve these problems.

- I have 2 tens and 5 ones. Who am I? _____
- I have 30 ones and 1 hundred. Who am I? _____ 2
- If you gave me 2 more tens, I would be 80. Who am I? _____
- I am 341. How many hundreds do I have? _____
- I have 2 tens and 10 ones. Who am I? _____
- I am 45. I have 25 ones. How many tens do I have? _____
- I have 12 tens and 3 ones. Who am I? _____
- I am 125. I have 12 tens. How many ones do I have? _____

Challenge Problems

- I have 13 tens, 2 hundreds, and 21 ones. Who am I? _____
- **10** If you took away 2 tens and 2 ones, I would be 29. Who am I? _____
- **11** I have 9 hundreds, 9 tens, and 10 ones. Who am I? _____
- **12** If you gave me 3 more tens, I would be 115. Who am I? _____
- **13** I have 7 hundreds, 10 tens, and 10 ones. Who am I? _____
- **14** If you took away 3 tens, I would be 70. Who am I? _____
- **15** I have 12 ones, and I am between 20 and 30. Who am I? _____ How many tens do I have? _____



Counting Rows page 1 of 2

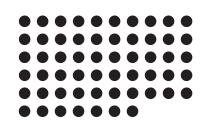
Fill in each table below to show how many dots are in each collection.

1



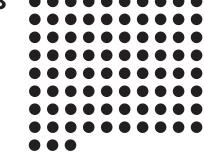
Hundreds	Tens (Rows)	Ones
This number	is —	

2



Hundreds	Tens (Rows)	Ones
This number		

3



Hundreds	Tens (Rows)	Ones
This number		

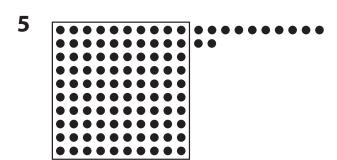
4



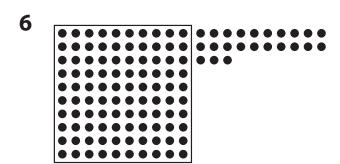
Hundreds	Tens (Rows)	Ones
This number	is ——	

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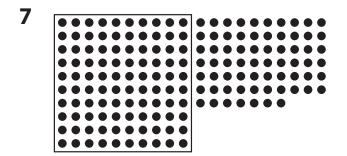
Counting Rows page 2 of 2



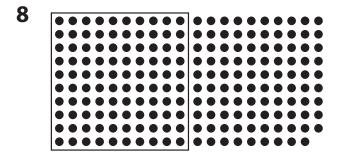
Hundreds	Tens (Rows)	Ones
This number		



Hundreds	Tens (Rows)	Ones			
This number is					



Hundreds	Tens (Rows)	Ones
This number		



Hundreds	Tens (Rows)	Ones
This number		

If you added 1 more dot to the group of dots in problem 8, how many dots would there be? _____

NAME | DATE



Lots of Dots Challenge

Put a circle around:

the 190th dot

the 212th dot

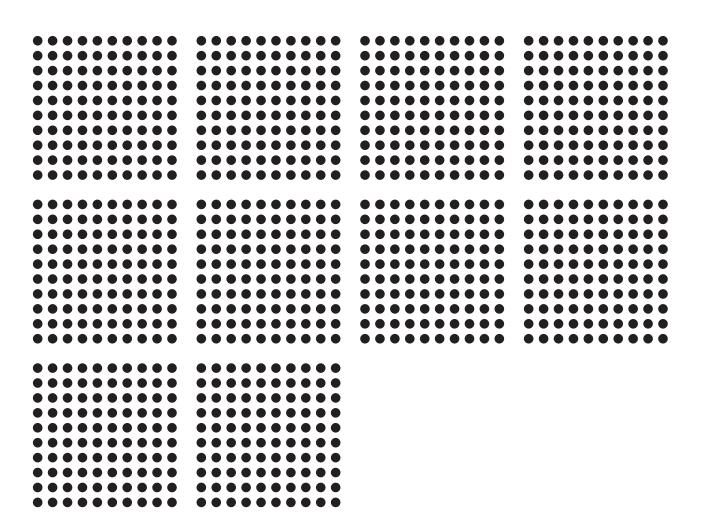
the 480th dot

the 657th dot

the 804th dot

the 999th dot

the 500th dot



DATE



Measuring Jack's Beans

1 Use Unifix cubes to measure each of the strips Jack cut to match the lengths of the beans on the giant bean stalk. Write the length of each bean below.

Beans How many cub	es?
v	
4	
5	
6	
n en ov	How many cube A 2 B 3 B 4 B 5 Wn A 6 A 6 A 6 A 7 B 7 B 7 B 8 B 8 B 8 How many cube A 7 B 7 B 7 B 7 B 7 B 7 B 7 B 7

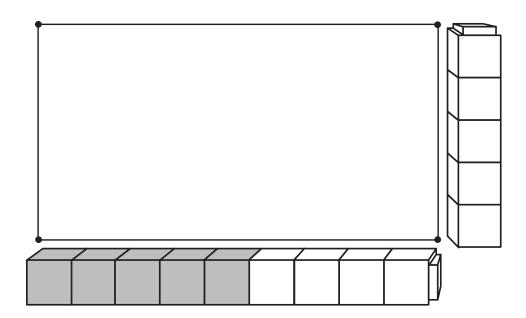
8 When you are finished measuring all the paper strips, color each bean on this sheet to match the color name below the drawing.

NAME

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Measuring Jack's Garden Beds



Use Unifix cubes to help Jack find out how many bricks it will take to go all the way around each of the garden beds.

- Garden Bed 1 ____cubes
- Garden Bed 2 cubes
- Garden Bed 3 cubes
- Garden Bed 4 ____cubes
- 5 Garden Bed 5 ____cubes

NAME DATE

Measuring with Ten-Strips

The object I measured	Number of ten-strips?	Plus how many more?	Total length?
1			
2			
3			
4			
5			
6			
7			



Measuring Beans page 1 of 3

Help Jack measure his beans! How long are the beans together?



Black bean: 10 cubes long White bean: 9 cubes long

How long together?



Black bean: 10 cubes long White bean: 13 cubes long

How long together? _____



Black bean: 10 cubes long White bean: 21 cubes long

How long together?



Black bean: 10 cubes long White bean: 27 cubes long

How long together?

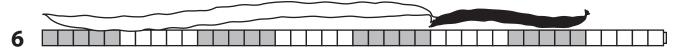


Black bean: 10 cubes long White bean: 6 cubes long

How long together?

(continued on next page)

Measuring Beans page 2 of 3



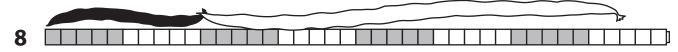
Black bean: 10 cubes long White bean: 25 cubes long

How long together? _____



Black bean: 10 cubes long White bean: 17 cubes long

How long together?



Black bean: 10 cubes long White bean: 27 cubes long

How long together?

- How long are the beans together?
 - 2 black beans (Remember that all of Jack's black beans are 10 cubes long.)

1 white bean, 13 cubes long

NAME

Measuring Beans page 3 of 3

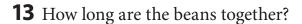
- **10** How long are the beans together?
 - 2 black beans
 - 1 white bean, 46 cubes long

11 How long are the beans together?

- 3 black beans
- 1 white bean, 22 cubes long

12 How long are the beans together?

- 5 black beans
- 1 white bean, 53 cubes long



- 6 black beans
- 1 white bean, 44 cubes long

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Buckets of Beans page 1 of 4

Jack charges for his beans by length, 1¢ per cube. Here are the lengths of his beans.

Bean Color	Length	Bean Color	Length	Bean Color	Length
green	10 cubes	white	30 cubes	purple	15 cubes
red	12 cubes	black	45 cubes	rainbow	60 cubes

Customers buy different numbers of beans. How much do they have to pay?

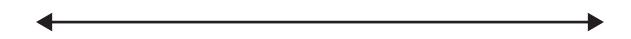
Practice

2 green beans. How much money? _____



Practice

1 green bean, 1 black bean. How much money? _____



1 green bean, 1 purple bean. How much money? _____



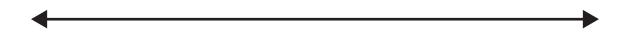
1 purple bean, 1 red bean. How much money? _____



Buckets of Beans page 2 of 4

Bean Color	Length	Bean Color	Length	Bean Color	Length
green	10 cubes	white	30 cubes	purple	15 cubes
red	12 cubes	black	45 cubes	rainbow	60 cubes

1 black bean, 1 white bean. How much money? _____



4 1 green bean, 1 rainbow bean. How much money? _____



2 green beans, 1 black bean. How much money? _____



6 2 purple beans. How much money? _____



NAME **Buckets of Beans** page 3 of 4

ı	DATE

Bean Color	Length	Bean Color	Length	Bean Color	Length
green	10 cubes	white	30 cubes	purple	15 cubes
red	12 cubes	black	45 cubes	rainbow	60 cubes

7 1 rainbow bean, 1 white bean. How much money? _____



2 black beans, 1 green bean. How much money? _____



Challenge Problems

2 rainbow beans, 2 white beans. How much money? _____



10 How much for 1 of every kind of bean? _____



NAME

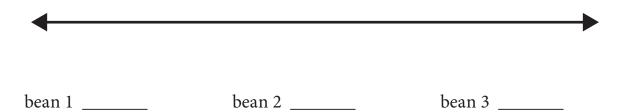
DATE

Buckets of Beans page 4 of 4

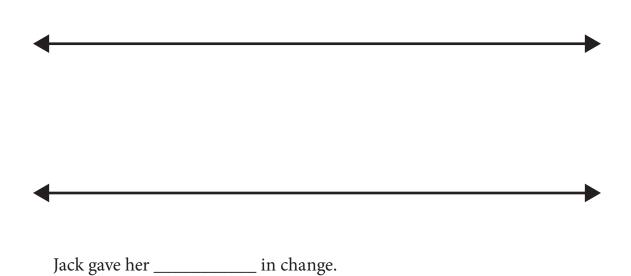
Bean Color	Length	Bean Color	Length	Bean Color	Length
green	10 cubes	white	30 cubes	purple	15 cubes
red	12 cubes	black	45 cubes	rainbow	60 cubes

Challenge Problems continued

11 A customer bought 3 beans and the total price was 55¢. What beans did she buy?



12 A customer bought 2 white beans and 1 purple bean. She gave Jack \$1. How much change did Jack give her?





Adding Vines page 1 of 2

Help Jack add the lengths of his bean vines. Use the number lines to show and solve each problem.

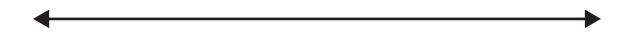
Green vine: 10 feet. Yellow vine: 20 feet. How long together?



Green vine: 9 feet. Yellow vine: 31 feet. How long together? _____



Green vine: 33 feet. Yellow vine: 47 feet. How long together?



Green vine: 49 feet. Yellow vine: 51 feet. How long together?



Green vine: 67 feet. Yellow vine: 33 feet. How long together?



Adding Vines page 2 of 2

6 Green vine: 99 feet. Yellow vine: 21 feet. How long together? _____



Green vine: 98 feet. Yellow vine: 22 feet. How long together? _____



Green vine: 110 feet. Yellow vine: 45 feet. Purple vine: 5 feet.

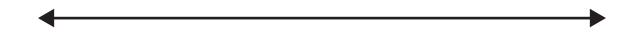
How long together? _____



CHALLENGE Jack has two vines. The green vine is 60 feet long. The yellow vine is 40 feet long. How much longer is the green vine? _____



10 CHALLENGE Jack has two vines. The green vine is 95 feet long. The yellow vine is 60 feet long. How much longer is the green vine? _____



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Finding Twos on the Hundreds Grid

Circle and then color in all the counting-by-2s numbers on this grid.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

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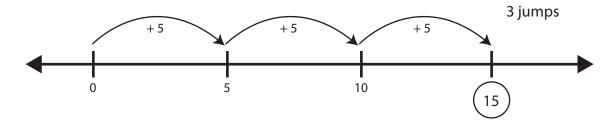


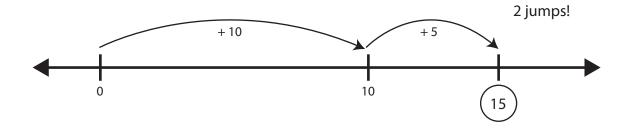
Hit the Target page 1 of 4

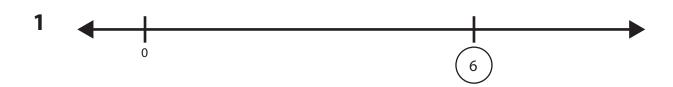
Use skip-jumps on the number line to go from 0 to the circled target number in each problem.

- Use the fewest jumps of 1, 5, or 10 possible for each problem.
- You can jump forward or backward, but only by 1, 5, or 10.
- Label your jumps and also the points on the number line where you land.

ex

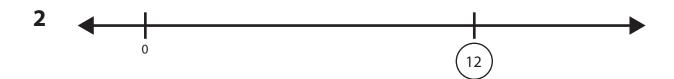






NAME | DATE

Hit the Target page 2 of 4









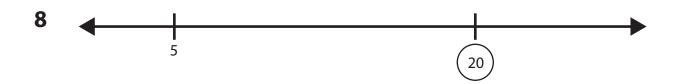
NAME

DATE

Hit the Target page 3 of 4

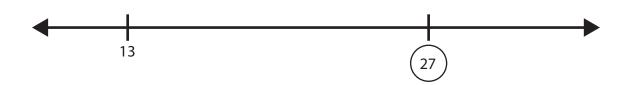






Challenge Problems

Go from 13 to 27 in as few jumps as possible. Use skip-jumps of 1, 5, or 10.

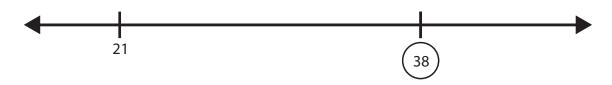


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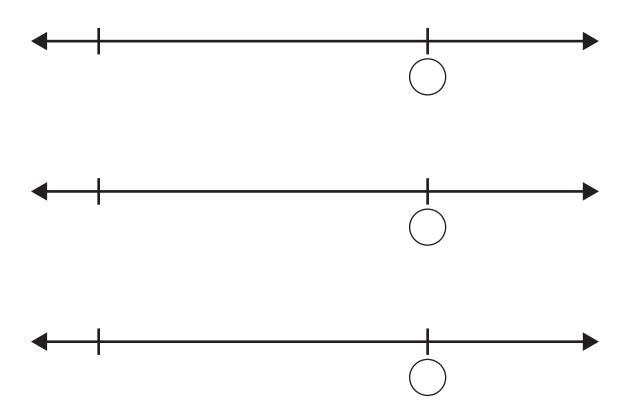
NAME DATE

Hit the Target page 4 of 4

10 Go from 21 to 38 in as few jumps as possible. Use skip-jumps of 1, 5, or 10.



- 11 Make up your own problems on the three blank number lines below. You can start with any number you want, and end with any number you want.
 - Write the starting number under the first mark on the line
 - Write the ending target number in the circle at the end of the line.
 - Go from your starting number to your ending number in as few jumps as possible. Use skip-jumps of 1, 5, or 10.

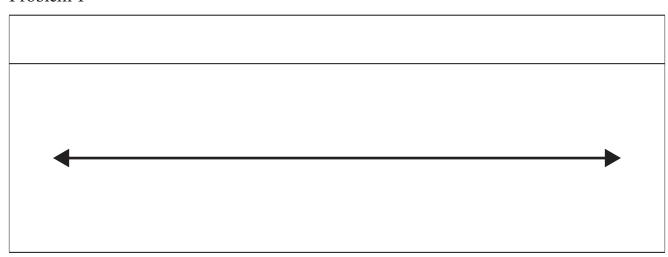




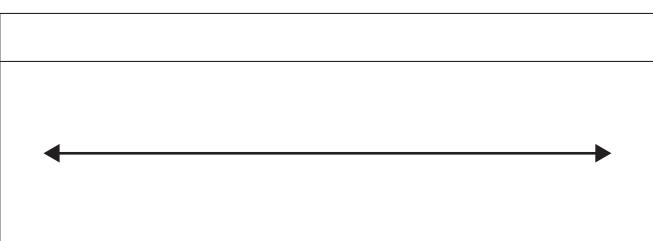
Open Number Line Record Sheet

Show how you solve the story problems below.

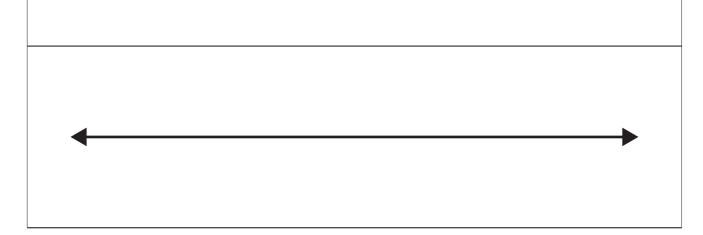
Problem 1



Problem 2



Problem 3



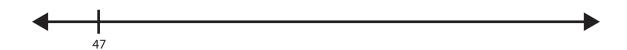
DATE



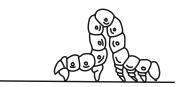
Length Problems on the Open Number Line

Use the open number line to solve each of these problems. Be sure to label your work and show the answer.

Little Inch Worm is going to visit her grandma. Her grandma lives 82 inches away. Little Inch Worm has already crawled 47 inches. How many more inches does she have to crawl?



Little Inchworm has to crawl _____ more inches.



We have 2 jump ropes. The red one is 120 inches long. The blue one is only 84 inches long. How many inches longer is the red rope than the blue rope?



The red jump rope is _____ inches longer than the blue jump rope.

NAME DATE



3C Hit the Zone Record Sheet

Zone 3 16–20 **Zone 1** 26–30 **Zone 5** 6–10 **Zone 2** 21–25 **Zone 6** 0–5 **Zone 4** 11–15

	Round 1				
My Targ	My Target Zone				
Spin 1					
Spin 2					
Spin 3					
Landii	ng Zone				
Zone Dif	Zone Difference				
Win?					
	Yes No				

	Round 2				
My Targ	My Target Zone				
Spin 1					
Spin 2					
Spin 3					
Landir	ng Zone				
Zone Dif	Zone Difference				
Win?					
Yes				No	

	Round 3				
My Targ	My Target Zone				
Spin 1					
Spin 2					
Spin 3					
Landir	Landing Zone				
Zone Dif	Zone Difference				
Win?					
	Yes No			No	

	Round 4			
My Targ	My Target Zone			
Spin 1				
Spin 2				
Spin 3				
Landiı	Landing Zone			
Zone Difference				
Win?				
Yes No			No	

Score Wins Ties Losses

Many Colors Record Sheet

- How many items do you think will be in your bag? _____
- Which color do you think there will be the most of in your bag? _____



Why do you think there will be the most of that color?

- Do you think all the other bags of items in the room will have the most of the same color too? _____
- Please record how many of each color you actually found in your bag.

blue yellow red green brown orange

- **6a** How many items did you have in all? _____
 - Use the space here to show how you figured out the total number of items.

When you and your partner shared the items equally, how many did you each get?

DATE



Telling More About Our Graphs page 1 of 2

Thinking About the Items in My Bag

- 1 How many items did you think you would have in your bag? _____
- How many items did you actually have in your bag? _____
- 3 What was the difference between your estimate and the actual number?
 - Use numbers, sketches, and/or words to help solve the problem.
 - Show your work below.
 - Write your answer on the line.



The difference between my estimate and the number of items I actually got was _____.

Looking at My Many Colors Graph

- Which color did you get most of in your bag? _____
- Which color did you think you'd get the most of? _____
- Which color did you get the fewest of? _____
- Were there more browns or more yellows in your bag? _____
- How many more? _____
- Write at least 3 different equations about the information on your graph.

(continued on next page)

NAME

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Telling More About Our Graphs page 2 of 2

Looking at a Classmate's Many Colors Graph

10 Write the name of the person who made the graph you are using.

- **11** Write two problems someone could solve by looking at your partner's graph. The problems should be the kind that can be answered with an equation.
 - a Problem 1:

Problem 2:

- **12** Now solve the two problems you just posed about your partner's graph. Use an equation to show and solve each problem.
 - Equation for and answer to Problem 1: a

Equation for and answer to Problem 2:



13 Share your problems and equations with your partner.

| DATE



Teacher Feet Record Sheet

How long are some of the things around our classroom in teacher feet?

Things We Measured	Estimate	Actual Answer

- What was the longest thing you measured?
- What was the shortest thing you measured?
- How many teacher feet do you think it would take to measure the distance from the classroom door to the office door?



Giant Feet Record Sheet

How long are some of the things around our classroom in giant feet?

Things We Measured	Estimate	Actual Answer

- What was the longest thing you measured?
- What was the shortest thing you measured?
- How many giant feet do you think it would take to measure the distance across the playground?

NAME

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Head String Record Sheet

- Cut a string to match the circumference of your head.
- Estimate how many tiles long your head string is. I estimate that my head string is _____ tiles long.
- Use tiles to measure how long your head string is. My head string is really _____ tiles long.
- Use your head string to help estimate the length of each of the objects below. After you estimate the length of an object, measure it with tiles to find out how long it really is.

Ol	oject	Estimate (in tiles)	Actual Answer (in tiles)
Your chair			
A table or desk			
A large book	A STATE OF THE STA		
A shelf			
A big piece of paper	←		
The leng	th of a ruler		
11 12 2 3 14 14 15 14 14 15 14 15 14 15 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16	+		

NAME

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Inchworm Ruler Record Sheet

- Use your inchworm ruler. Find at least four things in the room that are:
 - shorter than 1 foot
 - exactly 1 foot long
 - longer than 1 foot

Fill in this chart to show what you find.

Shorter than 1 foot	Exactly 1 foot	Longer than 1 foot

My shoe is (circle one)

shorter than a foot

exactly a foot

longer than a foot

My arm is (circle one)

shorter than a foot

exactly a foot

longer than a foot

- **CHALLENGE** There are _____ inches in 1 foot.
- **CHALLENGE** There are _____ inches in 2 feet.

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Estimate & Measure Inches

Use square inch tiles and your inchworm ruler to estimate and measure length in inches.

- Write down your estimate. How many inches long do you think it is?
- Measure the length with tiles.
- Measure it again with your ruler.

	Obje	ect	Estimate	Length (in tiles)	Length (in inches)
а	Pencil				
b	Crayon				
C	Book	TOWN ALL			
d	Chair Seat				
e	10 Uni	fix Cubes			
f	Calculator				
g	You choose				

DATE



- Use your yard-string. Find two things in the room that are:
 - shorter than 1 yard
 - exactly 1 yard long
 - longer than 1 yard.

Fill in this chart to show what you find.

Shorter than 1 yard	Exactly 1 yard long	Longer than 1 yard

My partner is (circle one)

shorter than a yard

exactly a yard

longer than a yard

A bookshelf in our room is (circle one)

shorter than a yard

exactly a yard

longer than a yard

- Find something in the room that is:
 - about 2 yards long
 - about 3 yards long
 - about 4 yards long

Fill in the chart to show what you find.

About 2 yards long	About 3 yards long	About 4 yards long

- 5 How many feet are there in 1 yard? There are _____ feet in 1 yard
- How many feet are there in 2 yards? There are ______ feet in 2 yards.
- How many inches are there in 1 foot? There are _____ inches in 1 foot.
- How many inches are there in 1 yard? There are _____ inches in 1 yard.

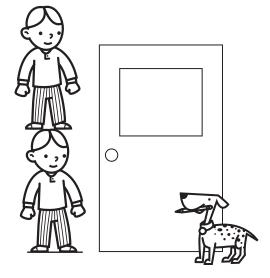
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Twice as Tall

- How tall are you right now?
 - Measure from the start of the paper strip to your height line to find out.
 - Record the results below.
 - Number of yards _____ a
 - Number of feet _____
 - C Number of inches _____



- Double each of the measurements above to predict how tall you would to be if you were twice your height.
 - a Number of yards ____ = ____
 - Number of feet ____ + __ = ____
 - C Number of inches _____ + ___ = ____
- Now find out for sure how tall you would be if you were twice your height.
 - Double the length of your paper strip by folding it over the height line, and cutting off the extra.

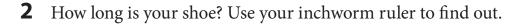


- Open your paper strip and measure it.
- Record the results below.
- Number of yards _____ a
- Number of feet _____
- C Number of inches _____
- Do your new measurements match your prediction?

Inchworms & Footworms page 1 of 2

How long is your pinky finger? Use your inchworm ruler to find out.

My pinky finger is _____ inches long.



My shoe is _____ inches long.



- How wide is your desk? Use your inchworm ruler to find out. Then use your footworm ruler.
 - When I use my inchworm ruler, my desk is _____ inches wide. a
 - When I use my footworm ruler, my desk is _____ feet wide.
 - C Which measuring tool was easier to use? Fill in the bubble to show.
 - The inchworm ruler was easier to use.
 - The footworm ruler was easier to use.
 - They were about the same.





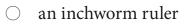
- Jon is going to measure the length of his sock.
 - Which measuring tool should Jon use? Fill in the bubble to show.
 - an inchworm ruler
 - a footworm ruler

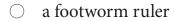


Inchworms & Footworms page 2 of 2

b Explain your answer to 4a. Why did you choose the tool you did?

- **5** The second graders are going to measure the length of their school bus.
 - **a** Which measuring tool should the second graders use? Fill in the bubble to show.







b Explain your answer to 5a. Why did you choose the tool you did?

- **6** It took 30 footworms to measure the bus.
 - **a** Would it take more or less inchworms to measure the bus? Fill in the bubble to show.
 - O It would take more inchworms to measure the bus.
 - O It would take fewer inchworms to measure the bus.
 - **b** Explain your answer to 6a. How do you know?

DATE



Piggyback Rides page 1 of 2

In the Giant Kingdom, the bigger worms give piggyback rides to the smaller worms. Use your inchworm ruler and your paper footworm and yardworm strips to help solve the problems below.



- 1 How many inchworms can ride piggyback on a footworm at one time? _____
- How many footworms can ride piggyback on a yardworm at one time? _____
- One day, 27 inchworms were waiting for a ride at the pickup spot. Along came 2 footworms.
 - Can all 27 inchworms ride piggyback at the same time on 2 footworms? Fill in the bubble to show.
 - Yes
 - No
 - How do you know?

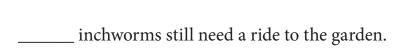
- One day, 2 footworms and 8 inchworms were waiting to cross the street. A yardworm came by and offered to give them a ride.
 - Was there enough room on a yardworm's back for the 2 footworms and 8 inchworms to all get a ride at the same time? Fill the bubble to show.
 - Yes
 - No
 - How do you know?

Piggyback Rides page 2 of 2

- There are 100 inchworms waiting to get a piggyback ride to the garden.
 - If there are 1 yardworm and 2 footworms ready to give rides, how many of the inchworms can they take at the same time? Use numbers, pictures, and/or words to solve the problem. Show your work.

1 yardworm and 2 footworms can carry _____ inchworms at the same time.

How many inchworms still need a ride to the garden? Use numbers, pictures, and/or words to solve the problem. Show your work.



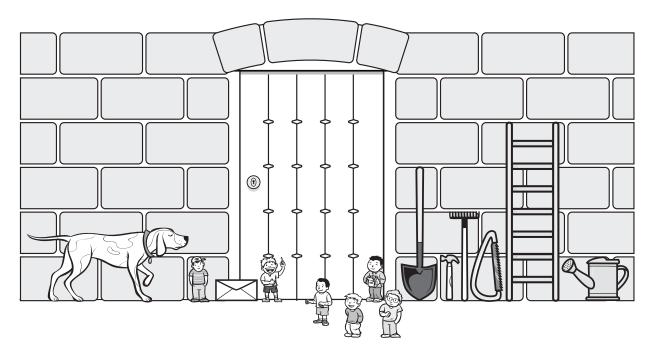


6 CHALLENGE One day, 1 yardworm and 3 footworms were all carrying full loads of inchworms on their backs. How many inchworms were there in all? Use numbers, pictures, and/or words to solve the problem. Show your work.

There were _____ inchworms in all.

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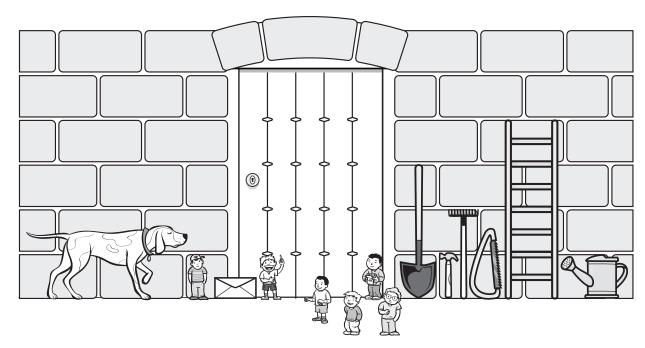


Use the picture of Jim and his friends outside the giant's door to answer the questions on the chart below.

How tall is the hammer?	How tall is the watering can?	How tall is the shovel?

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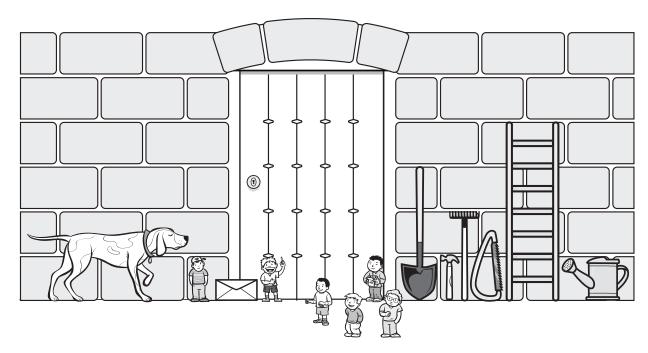


Use the picture of Jim and his friends outside the giant's door to answer the questions on the chart below.

How tall is the rake?	How tall is the ladder?	How tall is the door?

NAME DATE

The Giant's Door Challenge



Use the picture of Jim and his friends outside the giant's door to answer the questions on the chart below.

How tall is the dog?	How tall is the saw?	How tall is the envelope?

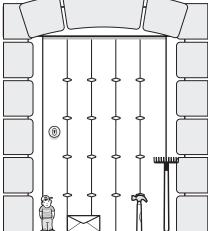


The Giant's Door

Use this picture of Jim, the envelope, the hammer, and the rake outside the giant's door to help solve the problems below.

1a How many Jims are equal to the height of the door?

b If Jim is 4 feet tall, how many feet tall is the door? Use numbers, pictures, and/or words to solve this problem. Show your thinking.



If Jim is 4 feet tall, the door is _____ feet tall.

- **2** Sam measured the height of the giant's door in hammers. Mia measured the height of the door in envelopes. Justin measured the height of the door in rakes.
 - **a** Who will have the smallest number for the height of the door?
 - **b** Who will have the largest number for the height of the door?
 - **C** Explain your answer.

NAME DATE



The Paper Circles Problem

We are going to make paper snow people. How many paper circles will I need to cut for our class if each student needs three? Please show all your work below. Be sure to put your answer in the box below and explain your work with words, numbers, and/or pictures.

We will need to cut

paper circles.

NAME | DATE



Finding Threes on the Hundreds Grid

Circle and then color in all the counting-by-3s numbers on this grid.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

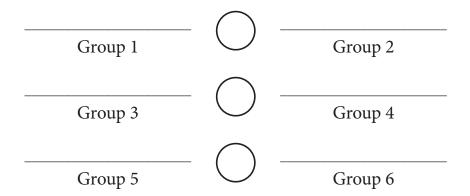


Pick-Up Sticks Record Sheet

1 Estimate how many sticks are in the container at your table.

I think there are _____ sticks in the container.

2 How many sticks did each group actually count? Record the numbers on the lines below.



3 Write a greater than >, less than <, or equal sign = in each of the circles above to compare the numbers.

4 Write the numbers of sticks in order from least to greatest on the lines below.

least greatest

5 How many sticks are there in all?

6 Write the total on each of the lines below. Then write a greater than >, less than < or equal sign = in each circle to compare the numbers.

____ 750 ____ 999 ____ 1,040

DATE



Counting Cubes Record Sheet

Estimate how many cubes are in the container at your table.

I think there are _____ cubes in the container.

- How many cubes were there in your container? Write the answer in four different ways below.
 - Number _____
 - Words _____
 - Hundreds, Tens and Ones
 - Expanded notation _____

Thinking About 1,000

999 + 1 and 500 + 500 are two different ways to make 1,000. Write some other ways to make 1,000 in the space below. You can use addition or subtraction; even multiplication if you like. You can also use more than two addends.

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Place Value Triple Roll Record Sheet page 1 of 2

Round 1	aund 1 Are you playing for more or less?						
100s	10s	1s	Blue team total				
100s	10s	1s	Red team total				
Use the greater tha	an >, less than <, or e	qual sign = to compare s	cores.				

Round 2	Are you playing for more or less?						
100s	10s	1s	Blue team total				
100s	10s	1s	Red team total				
Use the greater than >, less than <, or equal sign = to compare scores.							

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Place Value Triple Roll Record Sheet page 2 of 2

Round 3	Are you pla	Are you playing for more or less?						
100s	10s	1s	Blue team total					
100s	10s	1s	Red team total					
Use the greater th	nan >, less than <, or ed	qual sign = to compare s	cores.					
Put the 6 scores	in order from least	to greatest.						

Put the 6 scores	in	order	from	least	to	greatest
------------------	----	-------	------	-------	----	----------

	,	,	,	,	,	
least						greatest

CHALLENGE Add the three scores for each team below. Then roll a more/less die to see who wins the entire game. Circle the winning team.

Blue Team					
	100s	10s	1s		
Round 1					
Round 2					
Round 3					
Total					

Red Team					
	100s	10s	1s		
Round 1					
Round 2					
Round 3					
Total					

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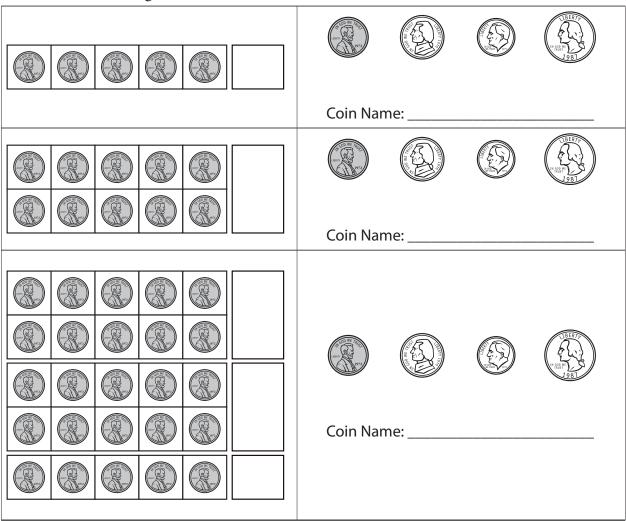
5A Jump-a-Ten Game Board

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200



Two Dimes & a Nickel page 1 of 3

Circle and write the name of the one coin that has the same value as the pennies in each of the counting frames below.



Use your coins to make six different combinations of 25¢. Do not use more than 10 pennies in any of the combinations. Record each one in the boxes below.

ех	O¢ + O¢ + ¢ + ¢ + ¢ + ¢ = 25¢

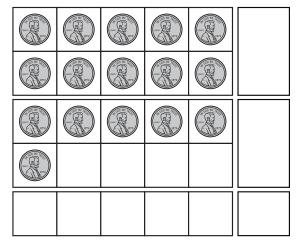
Two Dimes & A Nickel page 2 of 3

3 Answer the questions and solve the problems about the pennies in this 25-frame.

a How many pennies are there in the

frame? _____

b Write an equation to show how you counted the pennies in the frame.



C Draw and label a combination of coins that has the same value as the pennies in this frame.

d How many more pennies would it take to make 25 in all? Show your work. Write the answer on the line.

(continued on next page)

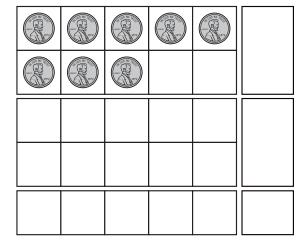
Two Dimes & A Nickel page 3 of 3

4 Answer the questions and solve the problems about the pennies in this 25-frame.

a How many pennies are there in the

frame? _____

b Write an equation to show how you counted the pennies in the frame.



C Draw and label a combination of coins that has the same value as the pennies in this frame.

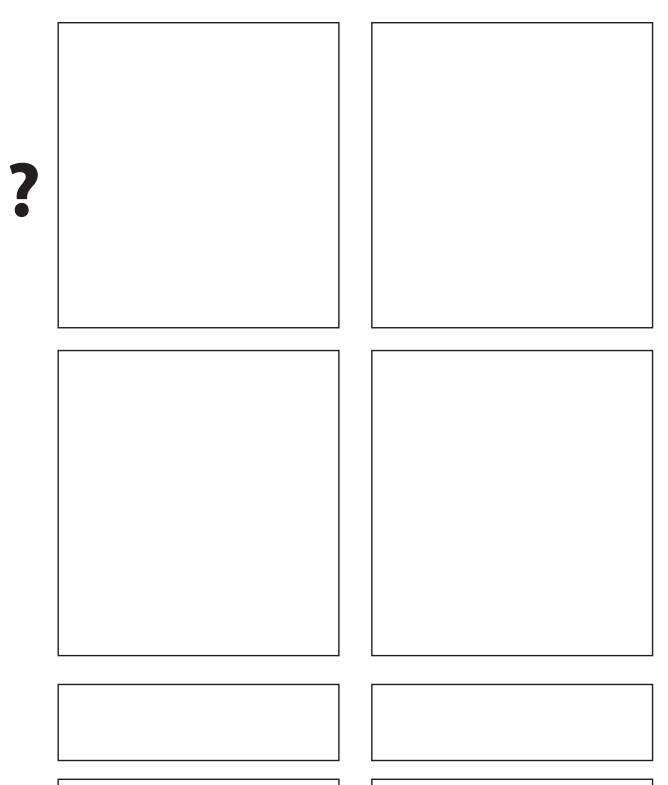
d How many more pennies would it take to make 25 in all? Show your work. Write the answer on the line.

It would take _____ more pennies to make 25 in all.





5B Close to 25¢ Record Sheet

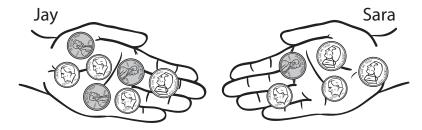


DATE



Pocketful of Coins page 1 of 3

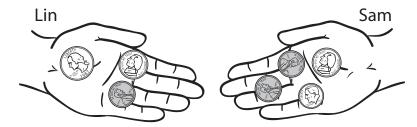
1 Jay and Sara are walking home from school and talking about how much money they have in their pockets. They hold out their hands to show the coins in their pockets.



a How much money does each child have in his or her hand?

Jay has _____¢ Sara has _____¢

- **b** How much money do the two children have in all? ______¢
- **2** Lin and Sam are walking home from school and talking about how much money they have in their pockets. They hold out their hands to show the coins in their pockets.

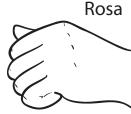


- **a** How much more money does Lin have than Sam? Show your work.
- **b** How much more money do Lin and Sam need together to make \$1.00? Show your work.

Pocketful of Coins page 2 of 3

3 Ming has some money in his hand that he shows to Rosa. Rosa has some money in her hand, but she won't show it to Ming. Together, they have 77¢.





- **a** How much money does Rosa have in her hand? Show your work.
- **b** Draw a picture to show what coins Rosa has in her hand. (There is more than one possible combination. Show two or more if you like.)

- **4** Before school, Mom gave Eric 58¢ and told him to share the money fairly with his sister, Amber.
 - **a** How much money will each child get? Use numbers, labeled sketches, and/or words to solve the problem. Show your work.

Each child will get _____¢.

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Pocketful of Coins page 3 of 3

b How much more money do Eric and Amber need to make \$1.00? Show your work.

Eric and Amber need _____ ¢ to make \$1.00.

5 CHALLENGE Jessie has exactly 6 coins in her pocket. They are worth 28¢ in all. Draw and label a picture to show the coins she has in her pocket.

5D Three Spins to Win Record Sheet

Player 1

How much money?		(18E7) (18E7) (18E7) (18E7) (18E7)	THE ACTION AND THE AC	
Spin 1				
Spin 2				
Spin 3				Grand Total
Totals				

Player 2

How much money?		(BERT) (NOS PT) (1981)	I Manual Manual Annual I Manual I Manua	
Spin 1				
Spin 2				
Spin 3				Grand Total
Totals				

 <u> </u>
)
/



Measuring with Clip Chains

Measure five objects or distances with your clip chain. Record your work in the table below.

Lengths and Distances												
Name of Object or Distance	100s	10s	1s	Total Number of Clips								
ex Long table in hall	1	3	2	100 + 30 + 2 = 132								

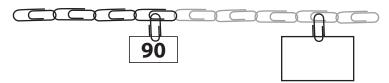
- 2 What was the longest object or distance you measured?
- 3 What was the shortest object or distance you measured?
- Find the difference between the lengths of these two objects or distances. Show your work.

The difference between the longest and the shortest object or distance I measured was _____ clips.

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More Broken Chains page 1 of 2

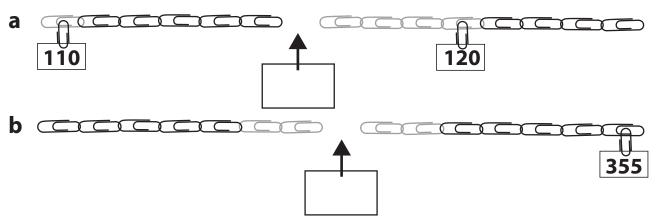
1 Oh no! Our paperclip chain broke! This is all we have left! Write the number on the blank card to show which clip is marked.



2 Here is another part of the chain. Write the numbers on the blank cards to show which clips are marked.



3 There is one paperclip missing in each of these chains. Write the number in the box to show which one it is.



4 Use this chain to answer the questions below.



- **a** If you added 10 more clips to the end of the chain marked 103, what number would you use to label the paperclip?
- **b** If you went backward 10 clips from the end of the chain marked 94, what number would you use to label the paperclip? _____

More Broken Chains page 2 of 2

5 Fill in the blank box at the end of this chain to show which clip is marked. Then use the chain to answer the questions below.



- a If you added 100 more clips to the end of the chain you just marked, what number would you use to label the paperclip?
- **b** If you went backward 100 clips from the end of the chain marked 727, what number would you use to label the paperclip? _____
- **6 CHALLENGE** The kids are trying to put all the pieces back together to make a chain of 1,000 paperclips. They added another section of 225 clips to the chain below. Did they reach 1,000? If not, how many more clips would they need to get to 1,000? Show all of your work.



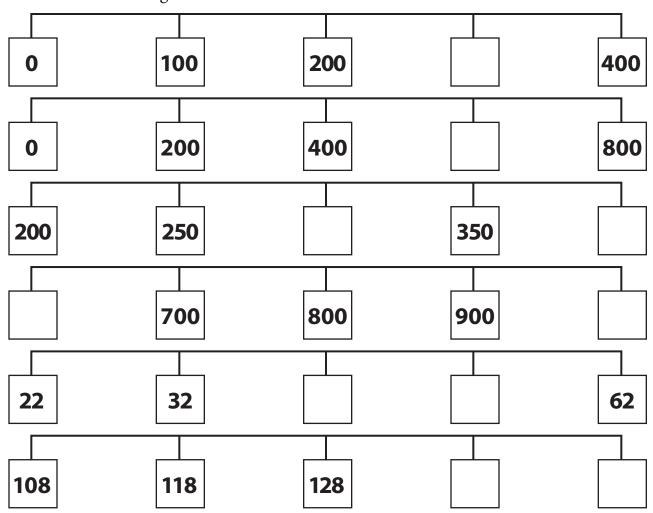
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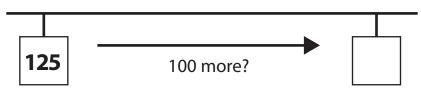
Bird's Eye View page 1 of 4

Imagine that you are looking at a chain of 1,000 paperclips from the top of a very high tree. You can see the labels on the chain but not the paperclips.

1 Fill in the missing numbers on these chains.

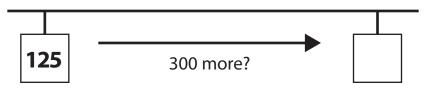


- 2 Now imagine that your friend is down on the ground counting the paperclips in the chain. Right now, he is at paperclip number 125. Fill in the boxes below to show where he would be if...
 - **a** He counted 100 more paperclips.

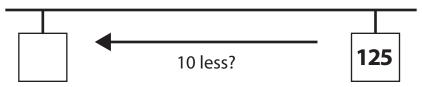


Bird's Eye View page 2 of 4

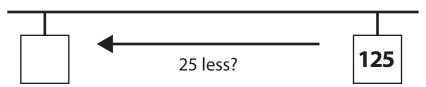
b He counted 300 more paperclips.



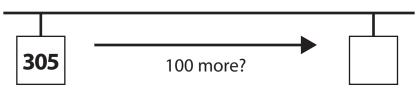
C He counted back 10 paperclips.



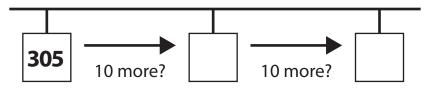
d He counted back 25 paperclips.



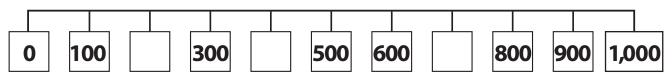
- **3** Now your friend is at paperclip number 305. Fill in the boxes below to show where he would be if...
 - **a** He counted 100 more paperclips.



b He counted 10 more paperclips and then 10 more paperclips after that?

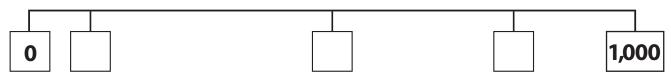


4 Here is a picture of a paperclip chain from 0 to 1,000. Fill in the missing numbers.

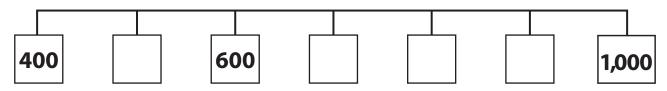


Bird's Eye View page 3 of 4

5 Here is a picture of a paperclip chain from 0 to 1,000. Write the numbers 500, 800, and 100 in the boxes where they belong.



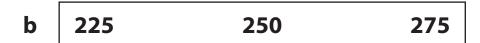
6 Here is a picture of a paperclip chain from 400 to 1,000. Write the numbers 900, 700, 800, and 500 in the boxes where they belong.



7 CHALLENGE Mark and label each of the number lines below with the numbers listed in the boxes.





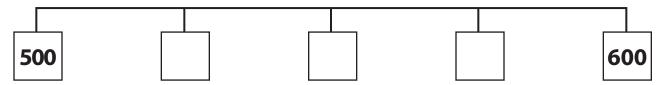




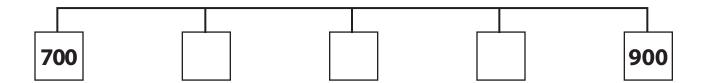
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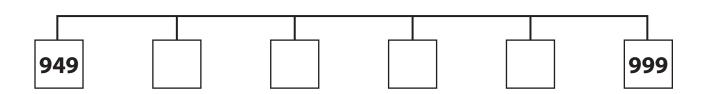
Bird's Eye View page 4 of 4

8 CHALLENGE Fill in the missing numbers on the number lines below.



DATE

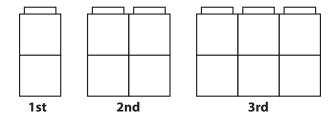






Unifix Cube Sequence Problems page 1 of 2

Here are the first 3 arrangements in a sequence of Unifix cubes:



Build and draw the 4th and 5th arrangements in the sequence.

4th Arrangement	5th Arrangement

Use words and/or numbers to write 3 observations about this sequence so far.

a

Sam says this sequence is a growing pattern. Do you agree with Sam? Why or why not?

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Unifix Cube Sequence Problems page 2 of 2

Draw the 10th arrangement in this sequence. You can build it first, or you can just draw how it will look.

How many cubes did it take to make the 10th arrangement in the sequence?

It took _____ cubes to make the 10th arrangement.

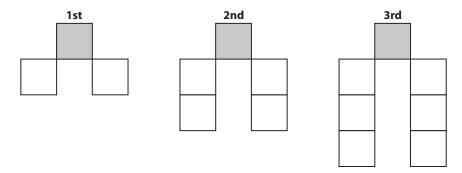
6 CHALLENGE How many cubes would it take to make the 100th arrangement in this sequence? How do you know?

CHALLENGE How many cubes would it take to make the 149th arrangement in this sequence? Show your work.



Tile Sequence Problems page 1 of 2

Here are the first 3 arrangements in a tile sequence:



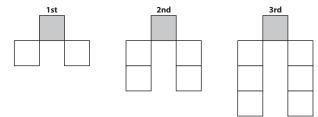
Build and draw the 4th and 5th arrangements in the sequence.

5th Arrangement

Use words and/or numbers to write 3 observations about this sequence so far.

Tile Sequence Problems page 2 of 2

3 Draw the 10th arrangement in this sequence. You can build it first, or you can just draw how it will look. (Hint: Make your sketch sideways to get it to fit.)



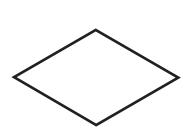
- **4** Still thinking about this sequence:
 - **a** How many tiles did it take to make the 5th arrangement? _____
 - **b** How many tiles did it take to make the 10th arrangement? _____
 - **C** How many tiles would it take to make the 20th arrangement? _____
- **5 CHALLENGE** Solve these problems about the tile sequence shown above. Show your work for each.
 - **a** How many tiles would it take to make the 26th arrangement? _____
 - **b** How many tiles would it take to make the 34th arrangement? _____
 - **C** Which arrangement would take 31 tiles to make? _____
- **6 CHALLENGE** What do you have to do to figure out how many tiles it takes to make any arrangement in the sequence above?



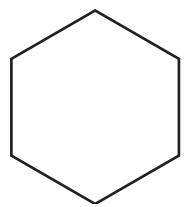
If a Triangle Is Worth One page 1 of 2



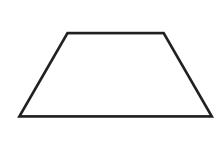
If the area of this triangle is worth 1 unit, what is the area of each of the shapes below? Be sure to prove your answers.



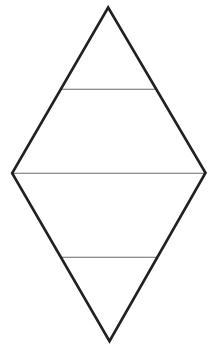




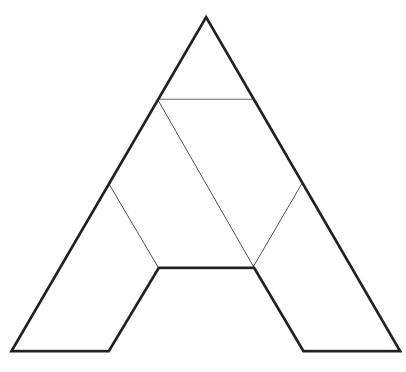




area = _____ units



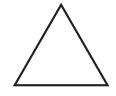
area = _____ units



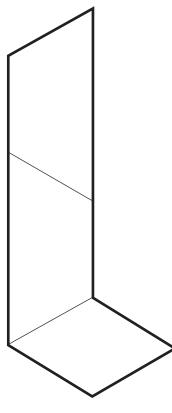
area = _____ units

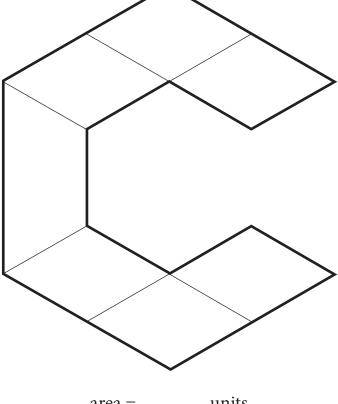
NAME | DATE

If a Triangle Is Worth One page 2 of 2



If the area of this triangle is worth 1 unit, what is the area of each of the shapes below? Be sure to prove your answers.





area = _____ units

area = _____ units

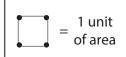
Now invent your own shape with pattern blocks. Record it below by tracing the pattern blocks. Have a friend figure out the area of your shape.

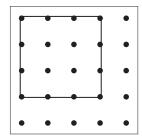
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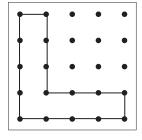


If the Four-Peg Square Is Worth One

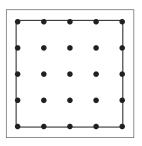




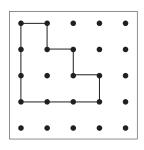
area = ____ units



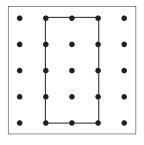
area = ____ units



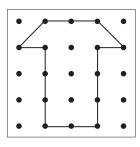
area = ____ units



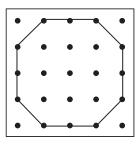
area = ____ units



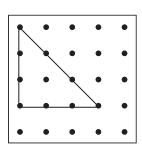
area = ____ units



area = _____ units



area = ____ units



area = _____ units

NAME DATE

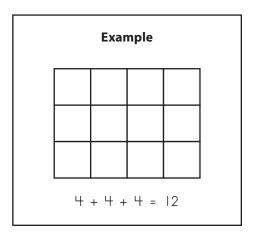


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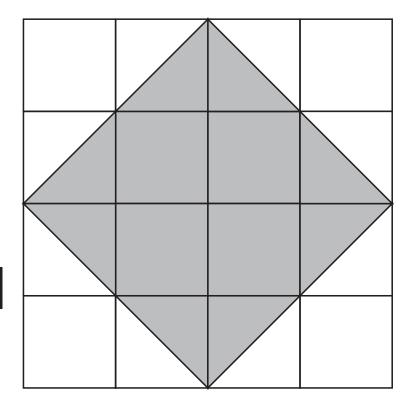
NAME DATE



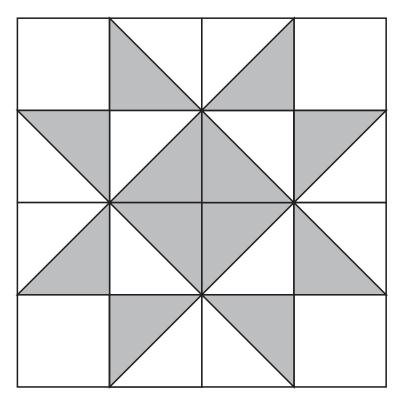
We have _____ blocks for our class quilt. Take that many colored tiles and push them together to form a rectangle without any gaps or holes. Can you make more than one rectangle? Outline the rectangles you find on grid paper, cut them out, and glue them here to record your discoveries. Label each rectangle with an addition equation to show how many tiles there are in each row.



More Quilt Blocks



1 unit of area



What is the area of the gray region?

What is the area of the white region?

What is the area of the gray region?

What is the area of the white region? Unit 6 Module 3

Session 5

- This quilt block is $\frac{1}{2}$ gray and $\frac{1}{2}$ white.
- This quilt block is more than half gray.
- This quilt block is more than half white.

- This quilt block is $\frac{1}{2}$ gray and $\frac{1}{2}$ white.
- This quilt block is more than half gray.
- This quilt block is more than half white.

| DATE



Army Ant Ruler Record Sheet

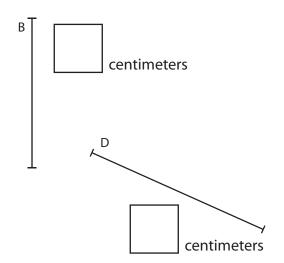
- Use your army ant ruler. Find at least 4 things in the room that are:
 - about 1 centimeter long
 - between 1 and 10 centimeters long
 - about 10 centimeters long

Fill in this chart to show what you find.

About 1 centimeter long	Between 1 and 10 centimeters long	About 10 centimeters long				

Measure these lines with your ant ruler. Label each line to show how long it is.

_A
centimeters
C
centimeters



| DATE



Estimate & Measure Centimeters

- 1 Use your army ant ruler to estimate and measure length in centimeters.
 - O Write down your estimate. How many centimeters long do you think it is?



- O Measure the length with your ruler.
- O Record the answer.

	Record the answer.		
	Object	My Estimate	Length in Centimeters
а			
	Eraser	cm	cm
b			
	Glue Stick	cm	cm
С			
	Calculator	cm	cm
d		cm	cm
	Pencil	CIII	CIII
е	40.11.15		
	10 Unifix cubes	cm	cm
f			
	Your pointer finger	cm	cm

NAME DATE



Solve the problems below with your paper granola bars. Be sure to label each ant's share.

1 What happens when 2 ants share 1 granola bar?



2 What happens when 3 ants share 1 granola bar?



3 What happens when 4 ants share 1 granola bar?



NAME DATE

Fair Shares page 2 of 2

Solve the problems below with your paper granola bars. Be sure to label each ant's share.

1 What happens when 2 ants share 2 granola bars?



2 What happens when 3 ants share 2 granola bars?



3 What happens when 4 ants share 2 granola bars?

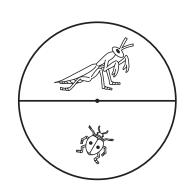


NAME DATE



Bug Spinner Record Sheet 1

You are going to spin the arrow on your half and half spinner 24 times. Color in the mini-graph below to show what you think will happen. Then take turns spinning and marking the large graph to see what really does happen.



- At										

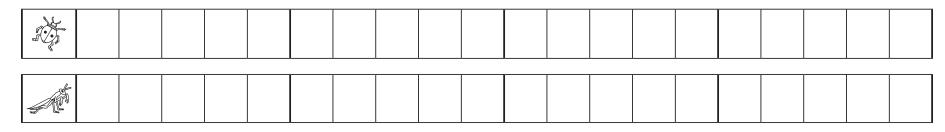
Unit 7 Module 2 Session 4

We predict that the arrow will land on the ladybug _____ times out of 24.

We predict that the arrow will land on the mantis _____ times out of 24.

We think it will turn out this way because:

Here's what really happened:



Ladybugs came up _____ times. Mantises came up _____ times.

NAME

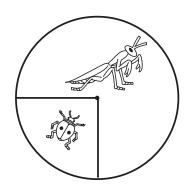
Ladybug

DATE

Unit 7 Module 2 Session 5

Bug Spinner Record Sheet 2

You are going to spin the arrow on your one-quarter and three-quarter spinner 24 times. Color in the mini-graph below to show what you think will happen. Then take turns spinning and marking the large graph to see what really does happen.

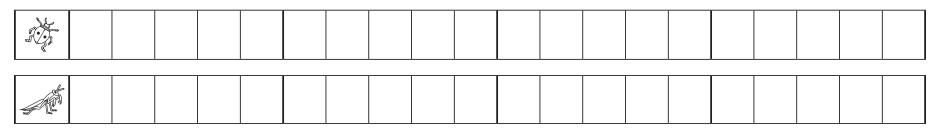


We predict that the arrow will land on the ladybug _____ times out of 24.

We predict that the arrow will land on the mantis _____ times out of 24.

We think it will turn out this way because:

Here's what really happened:



Ladybugs came up _____ times. Mantises came up _____ times.

DATE



More Toy Store Problems page 1 of 2

Solve each problem using one of the strategies on the class charts.

- Show all of your work.
- Write the answer on the line.
- Tell which strategy you used to solve the problem.
- The Ants' Toy Store decided to start selling toy trains. On Monday, the store received 175 train cars. On Wednesday, a truck delivered 216 more train cars. How many train cars does the store have in all?

The store has _____ train cars.

The name of the strategy I used is _____

One morning the store sold 148 kites. The toy store had 262 kites. How many kites did the store have left after it sold the kites?

The store had _____ kites left after it sold the kites.

The name of the strategy I used is _____

More Toy Store Problems page 2 of 2

Last month the Ants' Toy Store had a coloring contest. There were 128 entries, and 74 of them were from girls. How many were from boys?

of the entries in the coloring contest were from boys.

The name of the strategy I used is _____

CHALLENGE The Ants' Toy store has two boxes of bags for customers. One box has 128 bags and the other has 211 bags. A truck delivers another box of bags and now the store has a total of 416 bags. How many bags did the truck deliver?

The truck delivered _____ bags.

The name of the strategy I used is _____



Target Seven Hundred Record Sheet

Round 1	100s	10s	1s	Total	
Blue Team					
					
	+	+	=		
Red Team					
	+	+	=		
Write 700 and both teams' scores in order from least to greatest. Circle the score that is closer to 700.					

•	/

Round 2	100s	10s	1s	Total
Blue Team				
	+	+	=	
Red Team				
	+	+	=	

Write 700 and both teams' scores in order from least to greatest. Circle the score that is closer to 700.

	/	/
·	`	`

Round 3	100s	10s	1s	Total
Blue Team				
	+	+	=	
Red Team				
	+	+	=	

Write 700 and both teams' scores in order from least to greatest. Circle the score that is closer to 700.

<	<
	 `

DATE



Three-Digit Story Problems

Solve the first problem your teacher poses. Use numbers, labeled sketches, or words to help. Show all your work in the box. Write the answer on the line.

The Lin family drove _____ miles in all.

Solve the second problem your teacher poses. Use numbers, labeled sketches, or words to help. Show all your work in the box. Write the answer on the line.

Mason and Alice measured ______ feet of string in all.



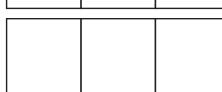
8A Sum It Up Class Record Sheet

We are playing for (circle one) less more

Students

Teacher



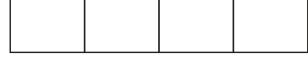


















We are playing for (circle one)

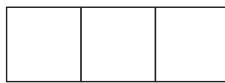
more

less

Player 1

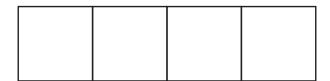


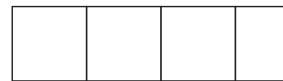






















Numbers on a Line Problem-Solving Sheet

Use the open number lines below to model and solve each problem your teacher gives you. Write the answer in the space provided at the end of each problem.

______'s family has _____ miles farther to drive.



Little Inchworm still has to go _____ inches to get to her friend's house.



The second graders in Kendra's group read _____ more pages in May than in September.





Roll & Subtract One Thousand Class Record Sheet

Teacher

	_	=

Students



| DATE



Marble Roll Experiment 1 Record Sheet

What happens if you set the top of the ramp higher?

Draw a picture of the experimental setup. Circle the things that will change each time. Star the things that will remain the same.

What do you think will happen when you make the ramp higher? Why?

Data Table

Distance rolled (in inches)

Height of Ramp	Trial 1	Trial 2	Trial 3
1 block high			
2 blocks high			
3 blocks high			

Look at your results. What really happened when you made the ramp higher?



Experiment 1: Thinking About the Data

- Look at your Marble Roll Experiment 1 Record Sheet. What did you think would happen when you changed the height of the ramp each time? Circle one of these choices or write your own.
 - I thought the marble would roll farther when the ramp was higher.
 - b I thought the marble would roll farther when the ramp was lower.
 - I thought the marble would roll the same distance each time.
 - d
- Does the class data on your line plot support your hypothesis? Explain why or why not.

- 3 What is the shortest distance you marked on the line plot? ____ inches
- What is the longest distance you marked on the line plot? ____ inches
- What is the difference between the shortest and the longest distance? Use the open number line below to model and solve the problem. Show all your work.



The difference between the shortest and longest distance on the line plot is _____ inches.

- What was the most common distance rolled by marbles from:
 - a ramp 1 block high? _____ inches
 - a ramp 2 blocks high? _____ inches
 - a ramp 3 blocks high? _____ inches

| DATE



Marble Roll Experiment 2 Record Sheet

What happens if you use marbles of different mass?

Draw a picture of the experimental setup. Circle the things that will change each time. Star the things that will remain the same.

What do you think will happen as the marbles increase in mass? Why?

Data Table

Distance rolled (in inches)

Height of Ramp	Trial 1	Trial 2	Trial 3
wood			
glass			
steel			

Look at your results. What really happened when you used marbles of greater mass?

NAME

DATE



Experiment 2: Thinking About the Data

- Look at your Marble Roll Experiment 2 Record Sheet. What did you think would happen when you changed the mass of the marble each time? Circle one of these choices or write your own.
 - I thought the marble would roll farther when the mass was greater.
 - b I thought the marble would roll farther when the mass was less.
 - I thought the marble would roll the same distance each time.
 - d
- Does the class data on your line plot support your hypothesis? Explain why or why not.

- What was the shortest distance you marked on the line plot? ____ inches
- What was the longest distance you marked on the line plot? ____ inches
- What is the difference between the shortest and the longest distance? Use the open number line below to model and solve the problem. Show all your work.



The difference between the shortest and longest distance on the line plot is _____ inches

- What was the most common distance rolled by
 - the wooden marble? _____ inches
 - the glass marble? _____ inches
 - the steel marble? _____ inches

| DATE



Marble Roll Experiment 3 Record Sheet

What happens if you make the ramp longer?

Draw a picture of the experimental setup. Circle the things that will change each time. Star the things that will remain the same.

What do you think will happen when you make the ramp longer? Why?

Data Table

Distance rolled (in inches)

Height of Ramp	Trial 1	Trial 2	Trial 3
short			
medium			
long			

Look at your results. What really happened when you increased the length of the ramp?

NAME

DATE



Experiment 3: Thinking About the Data

- Look at your Marble Roll Experiment 3 Record Sheet. What did you think would happen when you changed the length of the ramp each time? Circle one of these choices or write your own.
 - I thought the marble would roll farther when the ramp was longer.
 - b I thought the marble would roll farther when the ramp was shorter.
 - I thought the marble would roll the same distance each time.
 - d
- Does the class data on your line plot support your hypothesis? Explain why or why not.

- What was the shortest distance you marked on the line plot? ____ inches
- What was the longest distance you marked on the line plot? ____ inches
- What is the difference between the shortest and the longest distance? Show your work on the open number line below.



The difference between the shortest and longest distance on the line plot is ____ inches.

- What was the most common distance rolled by marbles on the
 - the short ramp? _____ inches
 - the medium ramp? _____ inches
 - the long ramp? _____ inches



Find Someone Who... Game Sheet

A game to help you think of survey questions. Move around the room, ask questions, and find someone who...

has the same favorite color as you. What is your favorite color?	was born in the same month as you. When is your birthday?	thinks dogs are the best kind of pets.	takes music, dance, or gymnastics after school.
would rather have cereal than eggs for breakfast.	is the same height as you. How tall are you with your shoes on?	has the same favorite sport as you. What is your favorite sport?	has shoes that are 2 inches shorter than yours. How many inches long is your shoe?
likes math best of all the school subjects.	would rather read than watch TV.	likes pizza more than anything else for dinner.	is the oldest kid in his or her family.
has brown hair and brown eyes.	has a pencil that is 1 inch longer than yours. How long is your pencil?	has the same favorite fruit as you. What is your favorite fruit?	goes to bed by 8:30 P.M. on school nights.

Remember that you can only use each person once.

When you find someone, get him or her to sign your paper. Good luck and have fun!



Survey Planning Sheet

Here is the question I want to ask my classmates:

Here are the answer choices (provide at least 2 but no more than 4 possible choices):

Here are my predictions about the results of this survey:

Collect and record your data here or on another piece of paper. You don't have to ask every person in class, but your sample size must be at least 20. Have fun!



Survey Analysis Sheet

- **1** What was your survey question?
- **2** List your answer choices in the table below, and write a number to show how many people picked each one. (You do not have to use all the columns if you didn't offer four choices.)

Cho	ices	1	2	3	4
Nun	nber eople				
of P	eople				

3 Use one of these symbols (>, =, or <) to compare the number of people who picked Choice 1 and the number of people who picked Choice 2.



- **4** Write an equation to show the difference between the number of people who picked Choice 1 and the number of people who picked Choice 2.
- **5** Write an equation to show how many people took part in your survey.
- **6** What did you find out from your survey?
- **7** What kind of results do you think you'd get if you did your survey with a group of 100 second graders from a school in another town? Why?