Amplify Desmos Math

Grade 2

Centers Resources

CENTER
Directions

Can You Draw It?

Stage 3

Let's draw triangles, quadrilaterals, pentagons, and hexagons.

Pairs

You'll need . . .

straightedges

Recording Sheet

Shape Cards, Grade 2

Set-up

- Lay the Shape Cards facedown in a pile.

How to Play

1. **Player A:** Choose a Shape Card. Do not show it to your partner! Describe the shape so your partner can draw it.
2. **Player B:** Draw the shape you think is on the card.
3. Compare the shapes. If the shapes match, Player A keeps the card. If the shapes do not match, lay the card facedown at the bottom of the pile.
4. Take turns.

How to Win

- The player who earns more cards after 6 rounds wins.

Name _____ Date _____

CENTER
Recording Sheet

Can You Draw It?

Stage 3

Round	Drawing	Round	Drawing
1		4	
2		5	
3		6	

CENTER
Directions

Capture Squares

Stage 3

Let's add within 20.

Pairs

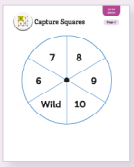
You'll need . . .


2 crayons or colored pencils


paper clip


Gameboard

Number Cards, 0–10



Spinner

How to Play

1. Spin the Spinner and draw 1 Number Card. Find the sum.
2. Draw 1 line connecting any 2 dots around the sum. If you cannot draw a line, spin again and draw a new card.
3. If you complete a square, shade the box with your color.
4. Take turns.

How to Win

- The first player to shade 3 boxes wins.

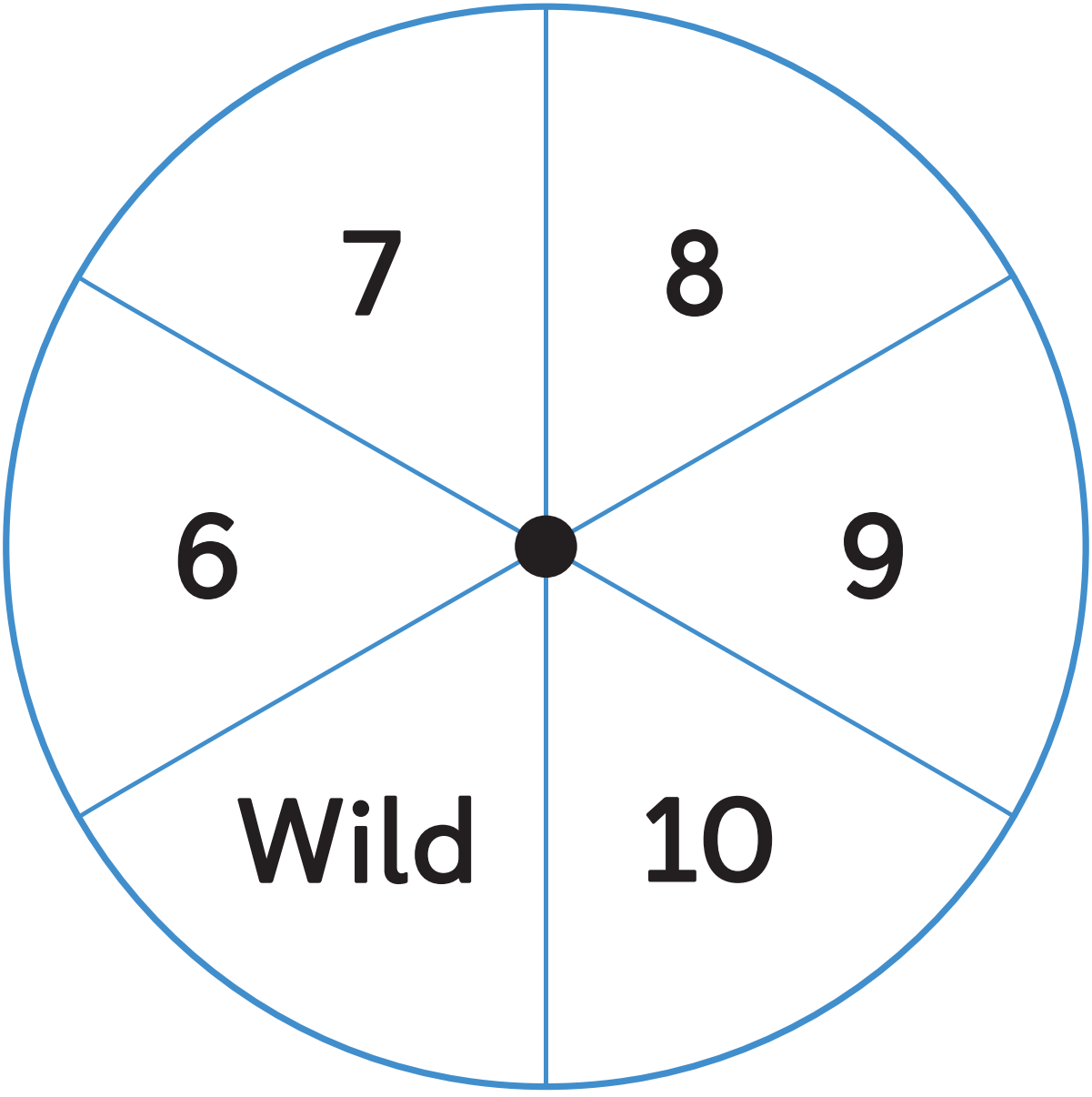
Capture Squares

Stage 3

Greater than 9	13	Less than 17	10
11	19	11, 12, 13, 14, or 15	17
16	6, 7, or 8	15	20
9	14	18	12

Capture Squares

Stage 3



CENTER
Directions

Capture Squares

Stage 4

Let's subtract within 20.

Pairs

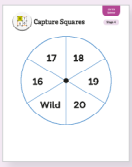
You'll need . . .


2 crayons or colored pencils


paper clip


Gameboard

Number Cards, 0–10



Spinner

How to Play

1. Spin the Spinner and draw 1 Number Card. Find the difference.
2. Draw 1 line connecting any 2 dots around the difference. If you cannot draw a line, spin again and draw a new card.
3. If you complete a square, shade the box with your color.
4. Take turns.

How to Win

- The first player to shade 3 boxes wins.

CENTER
Gameboard

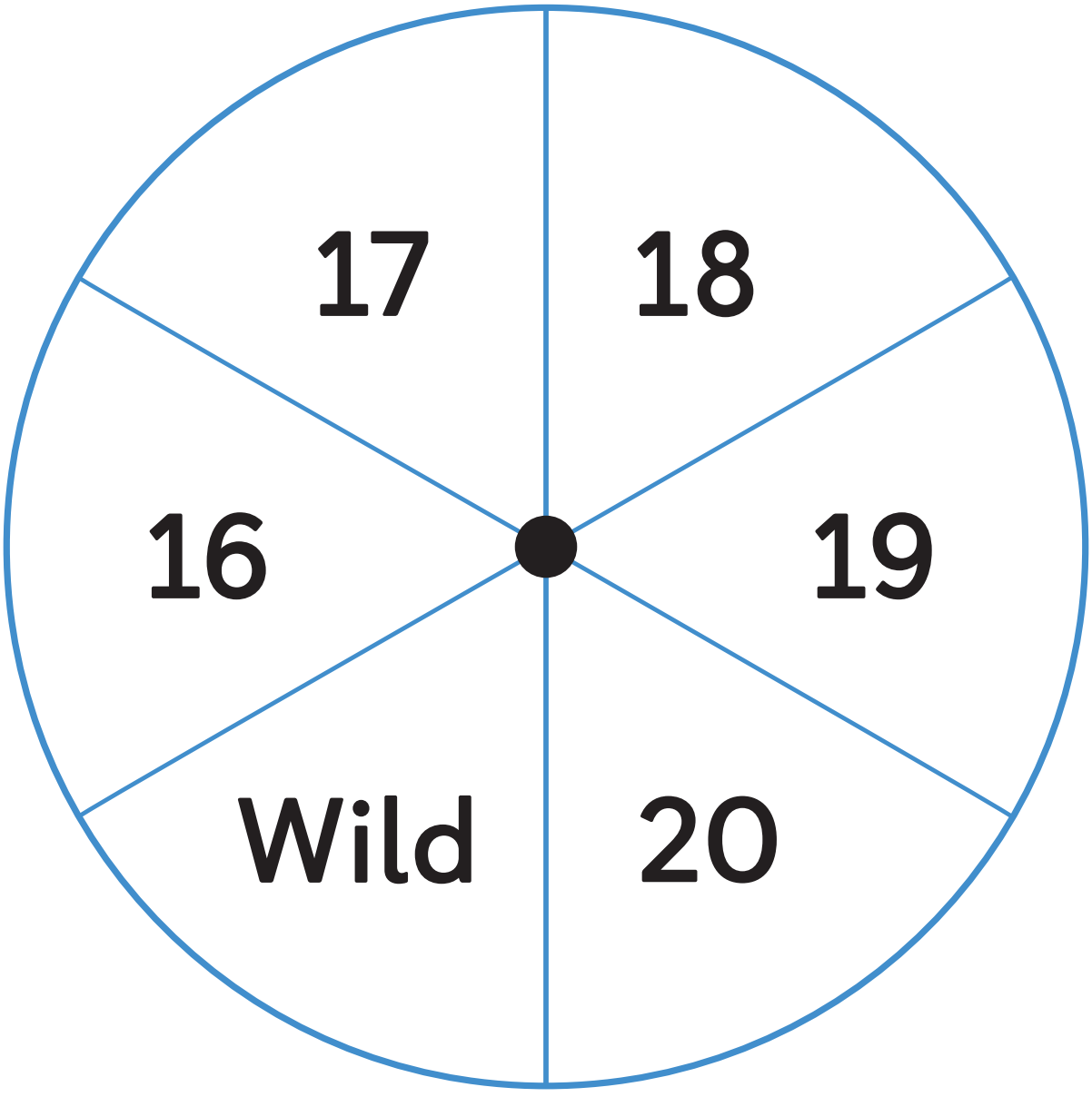
Capture Squares

Stage 4

Greater than 9	13	Less than 17	10
11	19	11, 12, 13, 14, or 15	17
16	6, 7, or 8	15	20
9	14	18	12

Capture Squares

Stage 4

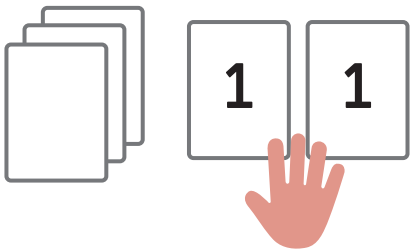


CENTER
Directions

Check It Off

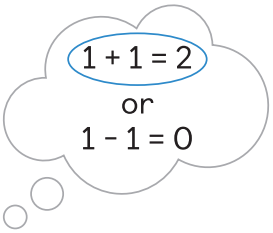
Stage 1

1



Draw 2 cards.

2



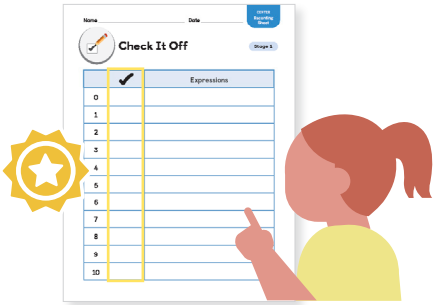
Find the *sum* or *difference*.

3

	✔	Expressions
0		
1		
2	✔	1 + 1

Check off the *sum* or *difference* you found, and record the *expression*. You can write another expression if you get the same *sum* or *difference* on another turn.

4



Take turns. The player who checks off more *sums* and *differences* wins.

Let's add and subtract within 10.

Pairs

You'll need . . .

Number Cards, 0–10

Recording Sheet

Name _____ Date _____

CENTER
Recording Sheet

Check It Off

Stage 1

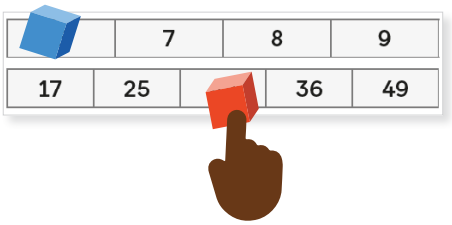
	✓	Expressions
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

CENTER
Directions

Cover Up

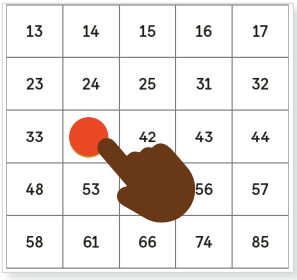
Stage 9

1



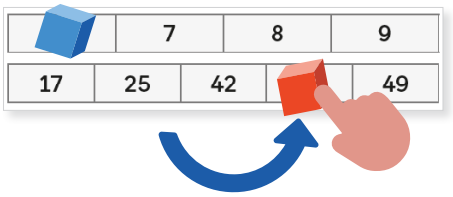
Player A: Put each cube on a number in the gray boxes.

2



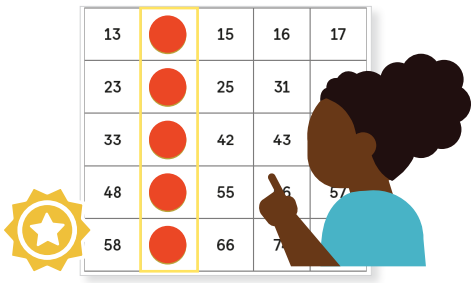
Add, record, and cover the sum with a counter.

3



Player B: Move 1 of the cubes. Add, record, and cover the sum.

4



Take turns. The first player to cover 5 in a row wins.

Let's add within 100.

Pairs

You'll need . . .

- 2 base-ten units
- two-color counters
- Gameboard A or B
- Recording Sheet

Cover Up

Stage 9

13	14	15	16	17
23	24	25	31	32
33	34	42	43	44
48	53	55	56	57
58	61	66	74	85

6	7	8	9

17	25	42	36	49

Cover Up

Stage 9

35	41	43	44	47
50	51	52	56	58
60	61	62	64	66
67	68	69	71	73
77	79	83	87	94

16	27	25	35

45	19	52	31	42

Name _____ Date _____

CENTER
Recording Sheet

Cover Up

Stage 9

Addition expression	Sum

Cover Up

Stage 10

Let's add within 1,000 without composing.

Pairs

You'll need . . .


2 base-ten units


two-color counters


Gameboard A or B


Recording Sheet

Set-up

- Choose a Gameboard.
- Choose who will use red counters and who will use yellow counters.

How to Play

1. **Player A:**
   - Put each cube on a number in the gray boxes.
   - Add the numbers. Cover the sum with a counter.
   - Record the addition expression and sum.
2. **Player B:**
   - Move one of the cubes. Add the numbers.
   - If the sum is not already covered with a counter, cover it.
   - Record the addition expression and sum.
3. Take turns. Record each addition expression and sum, even if you were unable to cover the sum.

How to Win

- The first player to cover 6 squares in a row wins.

Cover Up

Stage 10

47	59	68	76	85	97
328	336	345	353	357	365
366	357	374	384	386	395
447	464	476	485	519	536
548	557	634	655	663	745
753	774	817	825	846	936

44	15	32	53

342	432	504	313	321

Cover Up

Stage 10

237	315	341	349	375	409
418	436	445	457	453	484
514	523	546	562	547	573
556	595	617	626	651	653
656	665	684	731	745	754
764	793	825	834	873	962

243	105	352	210

441	132	304	313	521

Name _____ Date _____

CENTER
Recording Sheet

Cover Up

Stage 10

Addition expression	Sum

Cover Up

Stage 11

Let's add within 1,000 with composing.

Pairs

You'll need . . .


2 base-ten units


two-color counters


Gameboard A or B


Recording Sheet

Set-up

- Choose a Gameboard.
- Choose who will use red counters and who will use yellow counters.

How to Play

1. **Player A:**
   - Put each cube on a number in the gray boxes.
   - Add the numbers. Cover the sum with a counter.
   - Record the addition expression and sum.
2. **Player B:**
   - Move one of the cubes. Add the numbers.
   - If the sum is not already covered with a counter, cover it.
   - Record the addition expression and sum.
3. Take turns. Record each addition expression and sum, even if you were unable to cover the sum.

How to Win

- The first player to cover 6 squares in a row wins.

Cover Up

Stage 11

123	132	139	147	154	163
344	351	360	366	373	375
382	397	415	431	446	422
477	484	493	508	594	620
627	636	643	651	665	705
727	776	848	870	919	981

58	65	74	89

562	357	308	419	286

Cover Up

Stage 11

414	455	513	533	550	564
577	591	605	628	632	642
655	669	683	683	696	724
727	731	741	754	778	782
791	805	809	819	833	846
850	908	945	959	972	1000

168	287	345	409

563	437	396	382	246

Name _____ Date _____

CENTER
Recording Sheet

Cover Up

Stage 11

Addition expression	Sum

CENTER
Directions

Equation Challenge

Stage 4

Let's use digit cards to make the equations true.

Pairs

You'll need . . .


scissors

Digit Cards

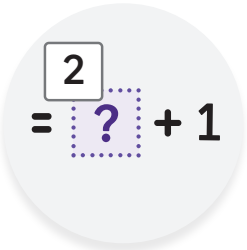

Gameboards A–H

Set-up

- Cut one number strip into digit cards.
- Choose a Gameboard.

How to Play

1. Work together to use the digit cards to make each equation true.
2. Each digit card can only be used one time on each Gameboard.
3. Choose a new Gameboard, and start again.



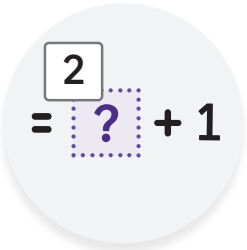
Name _____ Date _____

Equation Challenge

Stage 4

75 = 71 + ☐	75 = ☐ + 70
75 = ☐ ☐ + 65	75 = 43 + ☐ ☐
75 = ☐ ☐ − 23	75 = ☐ ☐ + 8

CENTER Gameboard B

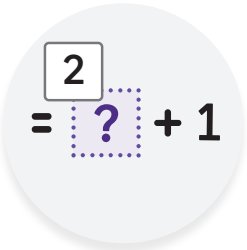


Name _____ Date _____

Equation Challenge

Stage 4

$98 = 47 + \square\square$	$98 = 1\square + 88$
$98 = \square + 95$	$98 = \square\square + 56$
$98 = 19 + \square\square$	$98 = 30 + \square\square$



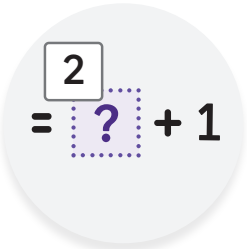
Name _____ Date _____

Equation Challenge

Stage 4

46 = ☐ 0 + 16	46 = ☐ ☐ + 26
46 = ☐ + 42	46 = 31 + ☐ ☐
46 = ☐ ☐ − 52	46 = ☐ ☐ − 30

CENTER Gameboard D

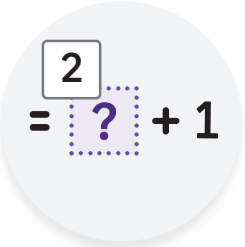


Name _____ Date _____

Equation Challenge

Stage 4

$68 = 3\square + 31$	$68 = 5\square + 18$
$68 = 4\square + 27$	$68 = 64 + \square$
$68 = 65 + \square$	$68 = 4\square + \square 0$
$68 = \square\square + 12$	$68 = 7\square - 11$



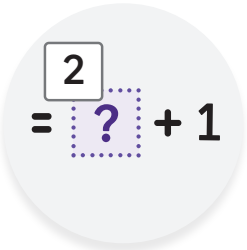
Name _____ Date _____

Equation Challenge

Stage 4

98 = 97 + ☐	98 = 9☐ + 2
98 = ☐0 + 8	98 = 58 + ☐0
98 = ☐0 + 68	98 = 78 + ☐☐
98 = 22 + ☐6	98 = ☐☐ + 13

CENTER
Gameboard F

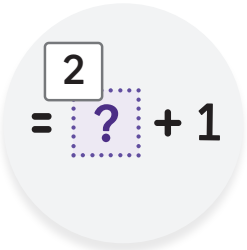


Name _____ Date _____

Equation Challenge

Stage 4

$35 = 4 \square - 14$	$35 = 1 \square + 21$
$35 = 6 \square - 33$	$35 = \square 2 + 1 \square$
$35 = 3 \square + 4$	$35 = \square 5 - 20$
$35 = 3 \square - 1$	$35 = \square 5 - 4 \square$



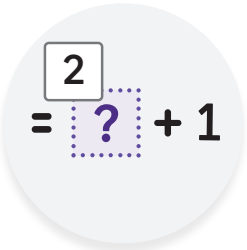
Name _____ Date _____

Equation Challenge

Stage 4

59 = ☐ 0 + 9	59 = 55 + ☐
59 = ☐ + 52	59 = 47 + 1☐
59 = 1☐ + 41	59 = 33 + 2☐
59 = ☐☐ + 29	59 = 40 + ☐☐

CENTER Gameboard H



Name _____ Date _____

Equation Challenge

Stage 4

77 = ☐7 – 20	77 = 5☐ + ☐1
77 = 88 – 1☐	77 = ☐0 + 37
77 = 87 – 1☐	77 = 4☐ + ☐0
77 = 9☐ – 21	77 = 22 + ☐5

CENTER
Directions

Equation Challenge

Stage 5

Let's use digit cards to make the equations true.

Pairs

You'll need . . .


scissors

Digit Cards


Gameboards A–H

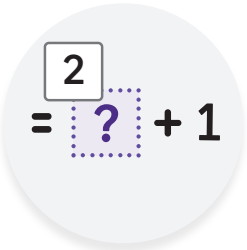
Set-up

- Cut one number strip into digit cards.
- Choose a Gameboard.

How to Play

1. Work together to use the digit cards to make each equation true.
2. Each digit card can only be used one time on each Gameboard.
3. Choose a new Gameboard, and start again.

CENTER Gameboard A

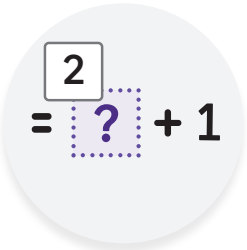


Name _____ Date _____

Equation Challenge

Stage 5

$63 = 5\square + 8$	$63 = 5\square + \square$
$63 = 1\square + 53$	$63 = 3\square + \square 9$
$63 = \square\square + 24$	$63 = 4\square + \square 5$



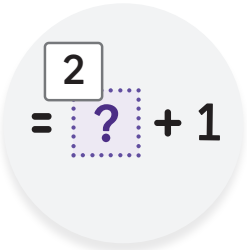
Name _____ Date _____

Equation Challenge

Stage 5

80 = 3 ☐ + ☐ 1	80 = ☐ 3 + 7
80 = 27 + ☐ ☐	80 = 1 ☐ + 6 ☐
80 = ☐ ☐ + 20	80 = 5 ☐ + 29

CENTER
Gameboard C

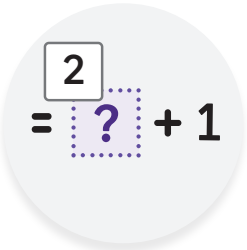


Name _____ Date _____

Equation Challenge

Stage 5

$27 = 1\square + 14$	$27 = 1\square + 1\square$
$27 = 9 + \square\square$	$27 = 2\square + 3$
$27 = \square\square - 4\square$	$27 = 1\square + 8$



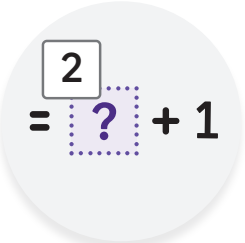
Name _____ Date _____

Equation Challenge

Stage 5

92 = ☐☐ + 6	92 = ☐ + 83
92 = 7☐ + 1☐	92 = 9☐ + ☐
92 = 39 + 5☐	92 = 78 + ☐☐

CENTER Gameboard E

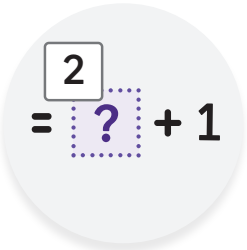


Name _____ Date _____

Equation Challenge

Stage 5

46 = ☐☐ + 23	46 = 1☐ + 31
46 = 4☐ + 5	46 = 3☐ + 7
46 = 3☐ + 10	46 = 3☐ + 8
46 = ☐☐ + 6	46 = ☐ + 39



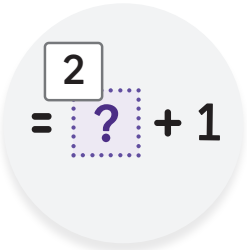
Name _____ Date _____

Equation Challenge

Stage 5

65 = 50 + ☐☐	65 = 31 + ☐☐
65 = 44 + ☐1	65 = 5☐ + ☐
65 = 2☐ + 3☐	65 = 1☐ + 55

CENTER
Gameboard G

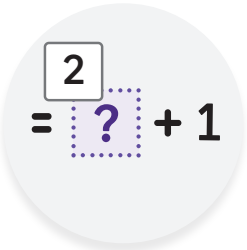


Name _____ Date _____

Equation Challenge

Stage 5

$50 = 44 + \square$	$50 = 10 + \square 0$
$50 = 1\square + 33$	$50 = 25 + 2\square$
$50 = \square 9 + \square 1$	$50 = 3\square + 12$
$50 = \square\square + 21$	$50 = \square + 50$

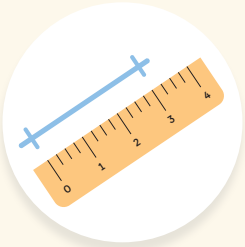


Name _____ Date _____

Equation Challenge

Stage 5

100 = ☐ 6 + 44	100 = 83 + 1 ☐
100 = 9 ☐ + 9	100 = 15 + ☐ 5
100 = ☐ 0 + 6 ☐	100 = 74 + 2 ☐
100 = 51 + 4 ☐	100 = 7 ☐ + ☐ 7



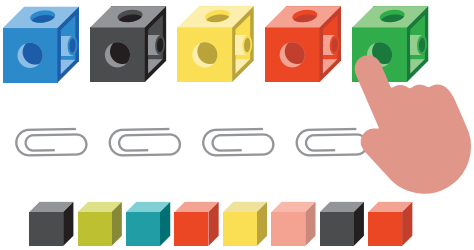
Estimate and Measure

Stage 3

1

Choose an object to measure.

2

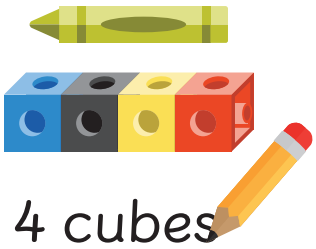


Choose a unit to measure the length. Use cubes, paper clips, or a different unit.

3

Estimate the length of your object and record your estimate.

4



Measure and record the actual measurement.

Let's estimate and measure the lengths of different objects.

Independent

You'll need . . .

connecting cubes

objects to measure

paper clips

Recording Sheet

Name _____ Date _____

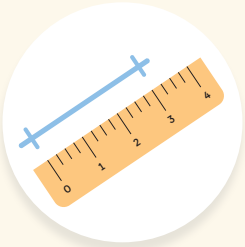
CENTER
Recording Sheet

Estimate and Measure

Stage 3

Object	Estimate	Actual measurement	Unit
crayon	5	4	cubes

CENTER
Directions



Estimate and Measure

Stage 4

Let's estimate and measure the lengths of different objects.

Pairs

You'll need . . .

measuring tools (ruler, meter stick, tape measure)

objects to measure

Recording Sheet

How to Play

1. Choose an object to measure.
2. **Partner A:** Choose a unit to measure the length of the object you chose — inches, feet, centimeters, or meters.
3. **Partner A:** Estimate the length of your object and record your estimate.
4. **Partner B:** Choose a measurement tool — ruler, meter stick, or tape measure.
5. **Partner B:** Measure and record the actual measurement.
6. Switch roles and repeat until the Recording Sheet is full.

Name _____ Date _____

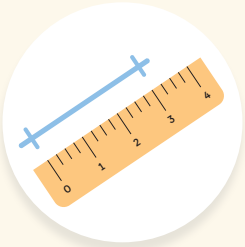
CENTER
Recording Sheet

Estimate and Measure

Stage 4

Object	Unit	Estimate	Actual measurement
crayon	inches	5 inches	3 inches

CENTER
Directions



Estimate and Measure

Stage 5

Let's measure objects with two different units.

Pairs

You'll need . . .

objects to measure

ruler (in. and cm)

Recording Sheet

How to Play

1. Choose an object to measure.
2. **Partner A:** Choose a unit to measure the length of the object — inches or centimeters. Measure the length to the nearest unit and record the measurement under Unit A.
3. **Partner B:** Estimate the length of the same object using the other unit and record your estimate.
4. **Partner B:** Measure and record the actual measurement in the Unit B column.
5. Switch roles and repeat until the Recording Sheet is full.

Discuss with your partner

- What do you notice when measuring the same objects with different units?

Name _____ Date _____

Estimate and Measure

Stage 5

Object	Unit A measurement	Unit B estimate	Unit B measurement
pencil	5 inches	10 centimeters	13 centimeters

CENTER
Directions

Stage 2

Get Your Numbers in Order

Let's order three-digit numbers from least to greatest.

Pairs

You'll need . . .


dry-erase markers

sheet protectors


Gameboard

Number Cards, 0–9

Set-up

- Shuffle the Number Cards and put them in a stack facedown.

How to Play

1. On your turn, draw 3 Number Cards and make a three-digit number.
2. You will order numbers from least to greatest. The player who starts the game records their number in any space on the Gameboard.
3. You cannot move a number once it is on the Gameboard. Take turns ordering and recording numbers until all the spaces are filled.
4. If your number cannot be placed on the Gameboard, say "pass," and you earn 1 point. If both players say "pass" 3 times in a row, the game ends.

How to Win

- The player with fewer points at the end of the game wins.

Get Your Numbers in Order

Stage 2

Least **Greatest**

Points

Player A	Player B

Greatest of Them All

Stage 2

Let's make and compare three-digit numbers.

Pairs

You'll need . . .

Number Cards, 0–9

Recording Sheet, one per pair

Set-up

- Decide who will be Player A and who will be Player B.
- Shuffle the Number Cards and put them in a stack facedown.

How to Play

1. Each player draws a Number Card and records it in one of the boxes. Once a number is placed, it cannot be moved.
2. Repeat until each player has a three-digit number.
3. Write a comparison using <, >, or =. The player with the greater number earns 1 point.

How to Win

- When the Recording Sheet is full, the player who earns more points wins.

Name _____ Date _____

CENTER
Recording Sheet

Greatest of Them All

Stage 2

Player A	Compare using <, >, or =	Player B	Winner?

CENTER
Directions

Greatest of Them All

Stage 3

Let's make and compare sums of 4 two-digit numbers.

Pairs

You'll need . . .

Number Cards, 0–9

Recording Sheet

Set-up

- Shuffle the Number Cards and put them in a stack facedown.

How to Play

1. Each player draws a Number Card and records it in one of the boxes on their own Recording Sheet.
2. Repeat until each player has 4 two-digit numbers on their own Recording Sheet.
3. Find the sum and record it.
4. Record your partner's sum. Write a comparison using <, >, or =. The player with the greater sum earns 1 point.

How to Win

- When the Recording Sheet is full, the player who earns more points wins.

CENTER
Recording Sheet

Name _____ Date _____

Greatest of Them All

Stage 3

Expression	My sum	My partner's sum	Compare using <, >, or =.	Winner?
□□ + □□ + □□ + □□				
□□ + □□ + □□ + □□				
□□ + □□ + □□ + □□				
□□ + □□ + □□ + □□				
□□ + □□ + □□ + □□				

CENTER
Directions

Stage 2

How Are They the Same?

Let's draw shapes that have shared attributes.

Groups of 4

You'll need . . .

straightedges


Recording Sheet A or B


Shape Cards, Grade 2

Set-up

- Lay 6 Shape Cards faceup.

How to Play

1. One player chooses 2 cards that have an attribute in common, without sharing the attribute with the group.
2. All players draw these shapes in the first two columns on their own Recording Sheet.
3. All players write an attribute that the 2 shapes have in common and then draw a new shape that has the same shared attribute.
4. Discuss your answers with your group. You earn 1 point for the shared attribute and 1 point for your shape, if everyone agrees.
5. Lay out 6 new Shape Cards to play another round. Take turns choosing 2 cards that have an attribute in common.

How to Win

- After 4 rounds, the player who earns the most points wins.

Name _____ Date _____

CENTER
Recording Sheet A

How Are They the Same?

Stage 2

Shape 1	Shape 2	Shared attribute	My new shape	Points

Name _____ Date _____

CENTER
Recording Sheet B

How Are They the Same?

Stage 2

Shape 1	Shape 2	Shared attribute	My new shape	Points

CENTER
Directions

Stage 1

How Close?

Let's add within 20.

Pairs

You'll need . . .

Number Cards, 0–9

Recording Sheet

Set-up

- Shuffle the Number Cards and lay them in a stack facedown.

How to Play

1. Each player draws 5 cards.
2. Choose 3 cards to fill in your equation. Find the sum.
3. Compare your sums. If your sum is closer to 20, you earn a point.
4. Draw 3 new cards and play again until the Recording Sheet is full.

How to Win

- The player who earns more points wins.

Name _____ Date _____

CENTER
Recording Sheet

How Close?

Stage 1

Addition equation	Points
☐ + ☐ + ☐ = ☐	
☐ + ☐ + ☐ = ☐	
☐ + ☐ + ☐ = ☐	
☐ + ☐ + ☐ = ☐	
☐ + ☐ + ☐ = ☐	

CENTER
Directions

How Close?

Stage 2

Let's subtract within 20.

Pairs

You'll need . . .

Number Cards, 0–9

Recording Sheet

Set-up

- Shuffle the Number Cards and lay them in a stack facedown.

How to Play

1. Each player draws 5 cards.
2. Choose 3 number cards to fill in your equation. Find the difference.
3. Compare the differences. If your difference is closer to 0, you earn a point.
4. Replace the 3 cards you used with 3 new cards and play again.

How to Win

- The player who earns more points wins.

Name _____ Date _____

CENTER
Recording Sheet

How Close?

Stage 2

Subtraction equation	Points
20 – ☐ – ☐ – ☐ = ☐	
20 – ☐ – ☐ – ☐ = ☐	
20 – ☐ – ☐ – ☐ = ☐	
20 – ☐ – ☐ – ☐ = ☐	
20 – ☐ – ☐ – ☐ = ☐	

CENTER
Directions

Stage 3

How Close?

Let's add numbers within 100.

Pairs

You'll need . . .

Number Cards, 0–9

Recording Sheet

Set-up

- Shuffle the Number Cards and lay them in a stack facedown.

How to Play

1. Each player draws 7 cards.
2. Choose 4 cards to fill in your equation. Find the sum.
3. Compare your sums. If your sum is closer to 100, you earn a point.
4. Replace the 4 cards you used with 4 new cards and play again.

How to Win

- The player who earns more points wins.

Name _____ Date _____

CENTER
Recording Sheet

How Close?

Stage 3

Addition equation	Points
☐☐ + ☐☐ = ☐☐	
☐☐ + ☐☐ = ☐☐	
☐☐ + ☐☐ = ☐☐	
☐☐ + ☐☐ = ☐☐	
☐☐ + ☐☐ = ☐☐	

CENTER
Directions

Stage 4

How Close?

Let's add coins to 100¢.

Pairs

You'll need . . .

Number Cards, 0–9

Recording Sheet

Set-up

- Shuffle the Number Cards and lay them in a stack facedown.

How to Play

1. Each player draws 4 cards. Choose a number to tell how many of each coin. You do not have to use all 4 cards. Record the number of each coin.
2. Find the total value of the coins that have been assigned numbers.
3. Compare your sums. If your sum is closer to 100¢, you earn a point.
4. Draw 4 new cards and play again until the Recording Sheet is full.

How to Win

- The player who earns more points wins.

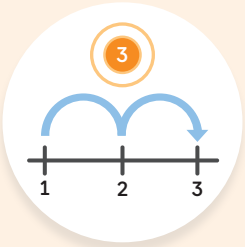
CENTER Recording Sheet

Name ______________________ Date ______________

How Close?

Stage 4

Quarters	Dimes	Nickels	Pennies	Total value	Points



Jump the Line

Stage 1

Let's add and subtract using a number line.

Pairs

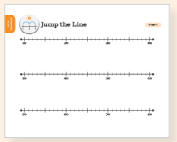
You'll need . . .


6 base-ten units


dry-erase marker


paper clips, pencil

sheet protectors


Gameboard, Spinner

Set-up

- With your partner, choose a start number for each number line. Both players place their cubes at the start number on each number line on their Gameboard.
- Choose a target number for each number line, and use the dry-erase marker to mark it with a point.

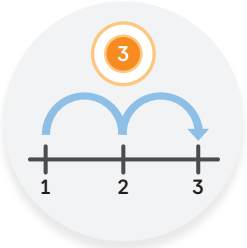
How to Play

1. When it is your turn, spin the Spinner.
2. Add and subtract on one or more number lines as you move your cube the distance you spun. You may use your spin on one number line, or split it between multiple number lines.
3. Take turns spinning and moving your cube on the number line.

How to Win

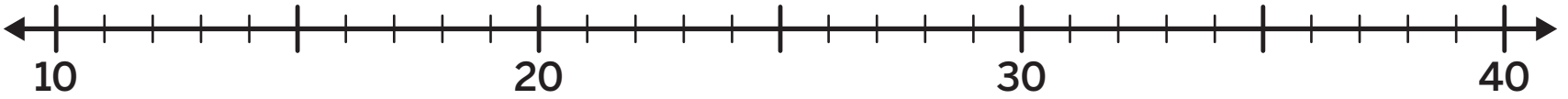
- The first player to land on two of the target numbers wins.

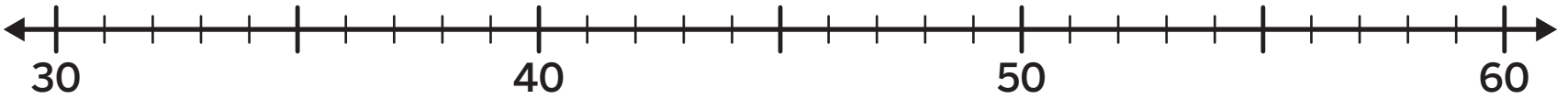
CENTER
Gameboard

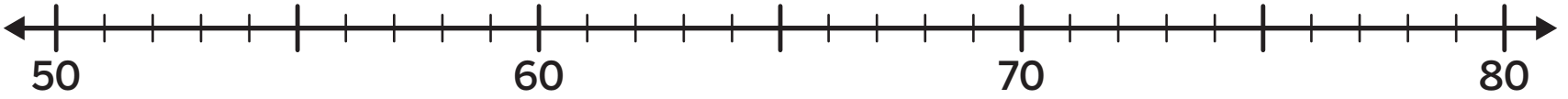


Jump the Line

Stage 1

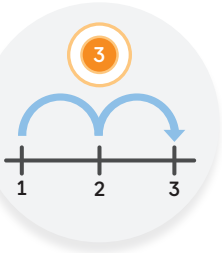


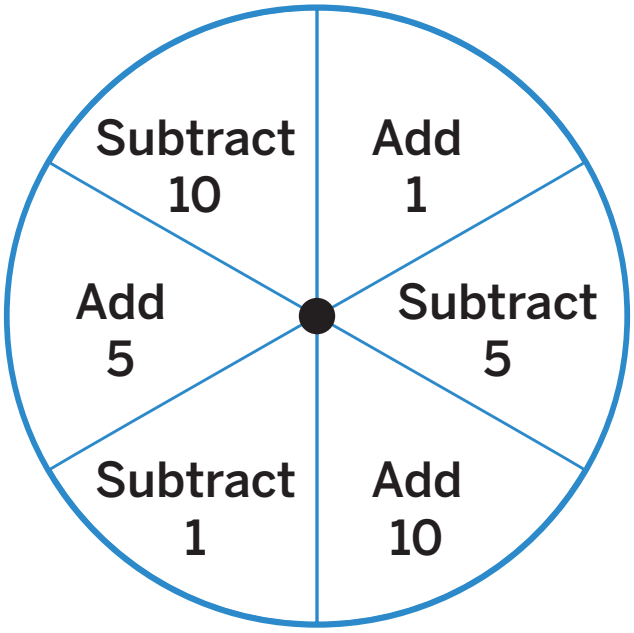


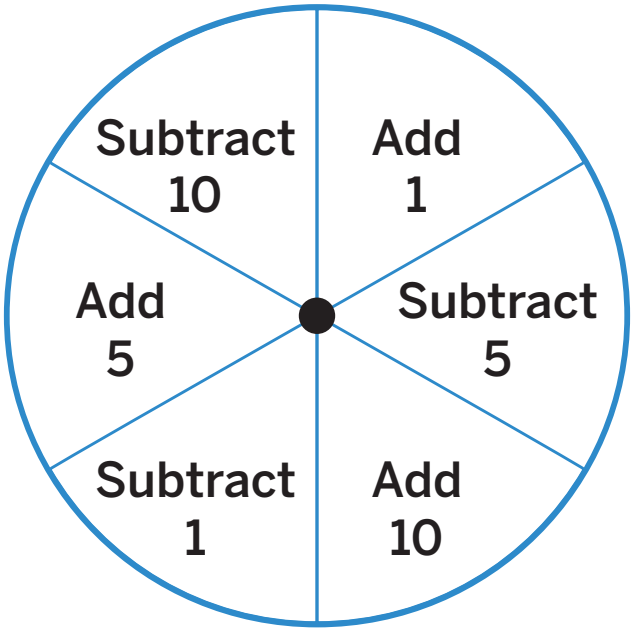


Jump the Line

Stage 1







Last Number Wins

Stage 4

Let's count by 2, 5, and 10.

Pairs

You'll need . . .


dry-erase markers

sheet protectors


Gameboard

Set-up

- Choose a number that is less than or equal to 780, and record it in the first space on the Gameboard. This is your starting number.
- Choose whether to skip count by 2, 5, or 10.

How to Play

1. **Player A:** Record the next 1, 2, or 3 numbers on the Gameboard.
2. **Player B:** Record the next 1, 2, or 3 numbers on the Gameboard.
3. Take turns choosing how many numbers to record and recording them.

How to Win

- The player who records the last number on the Gameboard wins.

CENTER
Gameboard

Last Number Wins

Stage 4

Choose if you will count by 2, 5, or 10.

start

end

CENTER
Directions

Measure and Compare

Stage 2

Let's measure and find the difference in length between two objects.

Pairs

You'll need . . .


objects to measure

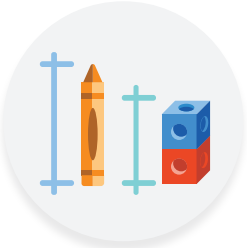
ruler
(in. and cm)


Recording Sheet

How to Play

1. Choose two objects to measure.
2. **Partner A:** Choose a unit to measure the object — inches or centimeters. Measure the length of the object and record the measurement under Object A.
3. **Partner B:** Measure the length of the other object using the same unit as Partner A. Record the measurement under Object B.
4. Find the difference in length between the two objects and write an equation.
5. Take turns choosing the unit to measure with. Repeat until the Recording Sheet is full.

CENTER
Recording Sheet



Measure and Compare

Stage 2

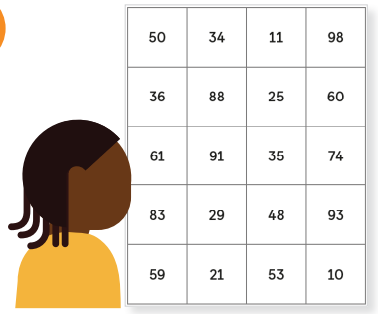
Object A	Object A length	Object B	Object B length	Equation	Difference
book cover	24 cm	pencil	13 cm	24 – 13 = 11	11 cm

CENTER
Directions

Mystery Number

Stage 1

1



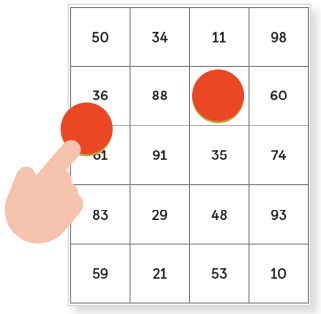
50	34	11	98
36	88	25	60
61	91	35	74
83	29	48	93
59	21	53	10

Player A: Choose a number on the Gameboard. Do not tell which one!

2

Player B: Ask your partner *yes* or *no* questions about the amounts of tens and ones.

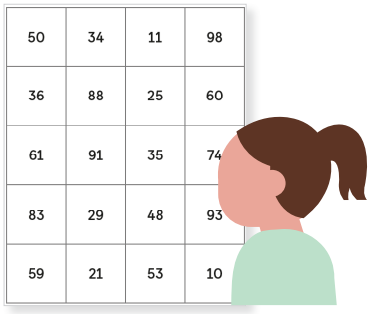
3



50	34	11	98
36	88		60
61	91	35	74
83	29	48	93
59	21	53	10

Player B: Cover up numbers that are *not* correct. Tell the number when you know it.

4



50	34	11	98
36	88	25	60
61	91	35	74
83	29	48	93
59	21	53	10

Take turns choosing a mystery number and asking questions.

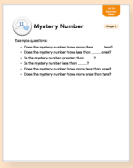
Let's use clues to guess two-digit numbers.

Pairs

You'll need . . .

two-color counters

Gameboard A or B



Reference Sheet

CENTER
Gameboard A

Mystery Number

Stage 1

50	34	11	98
36	88	25	60
61	91	35	74
83	29	48	93
59	21	53	10

CENTER
Gameboard B

Mystery Number

Stage 1

60	43	10	89
63	88	52	16
70	19	53	47
38	92	25	96
85	12	35	77

CENTER
Reference Sheet

Mystery Number

Stage 1

Example questions:

- Does the mystery number have more than _____ tens?
- Does the mystery number have less than _____ ones?
- Is the mystery number greater than _____?
- Is the mystery number less than _____?
- Does the mystery number have more tens than ones?
- Does the mystery number have more ones than tens?

CENTER
Directions

Mystery Number

Stage 2

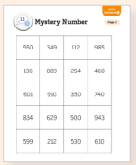
Let's use place value to guess three-digit numbers.

Pairs

You'll need . . .


counters


sticky notes


Gameboard A or B


Reference Sheet

Set-up

- Choose a Gameboard.

How to Play

1. **Player A:** Choose a number on the Gameboard and record it on a sticky note. Do not show your partner your number.
2. **Player B:** Ask as many *yes* or *no* place-value questions as you need to help you identify the mystery number.
3. **Player B:** Cover up numbers as you find they are not the mystery number. When you are ready, you have one guess to identify the mystery number. If you are correct, you earn 1 point.
4. Switch roles and repeat to complete Round 1.

How to Win

- Play 3 rounds. The player who earns more points wins.

Mystery Number

Stage 2

550	349	112	985
136	889	254	460
601	910	350	740
834	629	500	943
599	212	530	610

CENTER
Gameboard B

Mystery Number

Stage 2

505	934	121	589
631	988	245	640
610	190	530	470
438	296	505	349
595	221	350	106

Mystery Number

Stage 2

Example questions:

- Does the mystery number have more than _____ tens?
- Does the mystery number have fewer than _____ hundreds?
- Is the mystery number greater than _____?
- Is the mystery number less than _____?
- Does the mystery number have more tens than ones?
- Does the mystery number have fewer ones than hundreds?

Mystery Shape

Stage 3

Let's find the mystery shape.

Pairs

You'll need . . .

Recording Sheet A or B

Shape Cards, Grade 2

Set-up

- Organize the Shape Cards faceup in rows.

How to Play

1. **Player A:** Choose a mystery shape. Do not tell your partner which one!
2. **Player B:** Ask *yes* or *no* questions, and flip cards facedown as you find they are not the mystery shape. Record the number of questions you ask.
3. **Player B:** When you are ready, you have one guess to identify the mystery shape. Draw the shape you guess on your Recording Sheet. If you are correct, you earn 1 point.
4. Switch roles and repeat. Play 4 rounds.

How to Win

- The player who earns more points wins.

Name _____ Date _____

CENTER
Recording Sheet A

Mystery Shape

Stage 3

Round	Number of questions	My guess	Mystery shape	Points
1				
2				
3				
4				

Name _____ Date _____

CENTER
Recording Sheet B

Mystery Shape

Stage 3

Round	Number of questions	My guess (Draw or write the name.)	Mystery shape (Draw or write the name.)	Points
1				
2				
3				
4				

Mystery Shape

Stage 4

Let's find the mystery shape.

Pairs

You'll need . . .

12 unique solid shapes

Recording Sheet

Set-up

- Arrange 12 different solid shapes on the table.

How to Play

1. **Player A:** Choose a mystery shape. Do not tell your partner which one!
2. **Player B:** Ask *yes* or *no* questions, and remove shapes as you find they are not the mystery shape. Record the number of questions you ask.
3. **Player B:** When you are ready, you have one guess to identify the mystery shape. Draw or write the shape you guess on your Recording Sheet. If you are correct, you earn 1 point.
4. Switch roles and repeat. Play 4 rounds.

How to Win

- The player who earns more points wins.

Name _____ Date _____

CENTER
Recording Sheet

Mystery Shape

Stage 4

Round	Number of questions	My guess (Draw or write the name.)	Mystery shape (Draw or write the name.)	Points
1				
2				
3				
4				

CENTER
Directions

Number Line Scoot

Stage 1

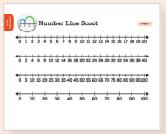
Let's use number lines to count by twos, fives, and tens.

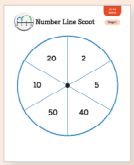
Pairs

You'll need . . .


12 base-ten units


paper clip


Gameboard



Spinner

Set-up

- Place a cube on 0 on each number line.

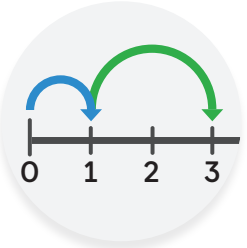
How to Play

1. When it is your turn, spin the Spinner.
2. Skip count aloud as you count up and move the distance you spun on one or more number lines. You may use your whole spin on one number line or split it between multiple number lines.
3. Take turns spinning and moving the cube. If a cube lands *exactly* on the last tick mark of a number line, that player keeps the cube and puts a new one at 0.

How to Win

- The first player to collect 5 cubes wins.

CENTER
Gameboard



Number Line Scoot

Stage 1

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

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40

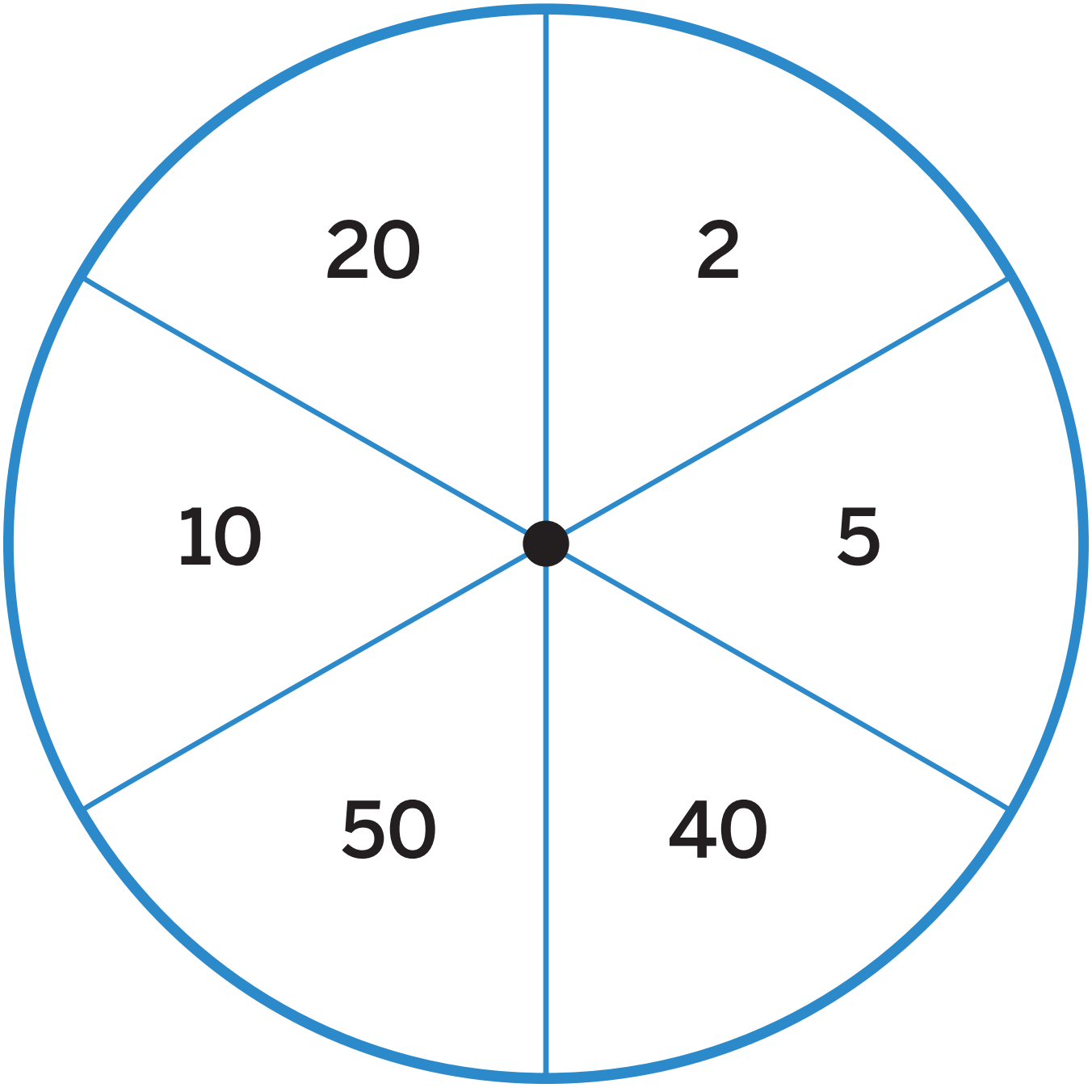
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

0 10 20 30 40 50 60 70 80 90 100

CENTER
Spinner

Number Line Scoot

Stage 1



CENTER
Directions

Target Measurements

Stage 1

Let's draw line segments to the target measurement (in whole inches and centimeters).

You'll need . . .

ruler (inches and centimeters)

straightedge

Recording Sheet

Pairs

How to Play

1. **Player A:** Choose a target length, up to 8 inches or up to 20 centimeters, and record it.
2. **Player A:** Begin to slowly draw a line with a straightedge on the Recording Sheet.
3. **Player B:** Say, "Stop!" when you think the length of the line is equal to the target measurement.
4. **Player B:** Measure the line segment to the nearest inch or centimeter. Record the measurement.
5. Find the difference between the length of the line and the target measurement. The value of the difference is the score for the partner who said "Stop!"
6. Take turns until each player's Recording Sheet is full.

How to Win

- The player with the lower score wins.

Name _____ Date _____

Target Measurements

Stage 1

1			
	Target:	Actual:	Points:
2			
	Target:	Actual:	Points:
3			
	Target:	Actual:	Points:
4			
	Target:	Actual:	Points:
			Total Points: _____

CENTER
Directions

Target Numbers

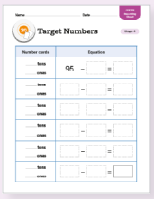
Stage 4

Let's subtract tens or ones from two-digit numbers.

Pairs

You'll need . . .

Number Cards, 1–9



Recording Sheet

Set-up

- Place the number cards facedown in a pile.

How to Play

1. Draw the top number card. Choose whether to subtract that number of *tens* or *ones* from the starting number.
2. Record your chosen number to create a subtraction equation. Complete the equation by finding the difference.
3. Record the difference from the previous equation as the starting number in your next equation.
4. Take turns until each player's Recording Sheet is full.

How to Win

- The player with a final difference closer to 0 wins.

Name _____ Date _____

CENTER
Recording Sheet

Target Numbers

Stage 4

Number cards	Equation
_____ tens _____ ones	95 − ☐ = ☐
_____ tens _____ ones	☐ − ☐ = ☐
_____ tens _____ ones	☐ − ☐ = ☐
_____ tens _____ ones	☐ − ☐ = ☐
_____ tens _____ ones	☐ − ☐ = ☐
_____ tens _____ ones	☐ − ☐ = ☐

CENTER
Directions

Target Numbers

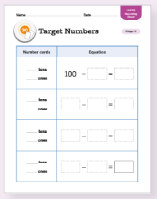
Stage 5

Let's subtract two-digit numbers from two-digit numbers.

Pairs

You'll need . . .

Number Cards, 1–9



Recording Sheet

Set-up

- Place the number cards facedown in a pile.

How to Play

1. Draw the top 3 number cards. Choose 1 card to represent the tens and 1 card to represent the ones to make a two-digit number to subtract from the starting number.
2. Record your chosen number to create a subtraction expression. Complete the equation by finding the difference.
3. Record the difference from the previous equation as the starting number in your next equation.
4. Take turns until each player's Recording Sheet is full.

How to Win

- The player with a final difference closer to 0 wins.

Name _____ Date _____

CENTER
Recording Sheet

Target Numbers

Stage 5

Number cards	Equation
_____ tens _____ ones	100 − ☐ = ☐
_____ tens _____ ones	☐ − ☐ = ☐
_____ tens _____ ones	☐ − ☐ = ☐
_____ tens _____ ones	☐ − ☐ = ☐

CENTER
Directions

Target Numbers

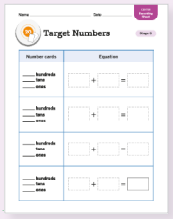
Stage 6

Let's add hundreds, tens, and ones to three-digit numbers.

Pairs

You'll need . . .

Number Cards, 1–9



Recording Sheet

Set-up

- Place the number cards facedown in a pile.
- Draw 3 number cards. Use the number cards to make a starting number for both players. Record the starting number in the first box on the Recording Sheet.

How to Play

1. Draw the top 5 number cards. Choose 1 card to represent the hundreds, 1 card to represent the tens, and 1 card to represent the ones to make a three-digit number to add to the starting number.
2. Record your number to create an addition expression. Complete the equation by finding the sum.
3. Record the sum from the previous equation as the starting number in your next equation.
4. Take turns until each player's Recording Sheet is full.

How to Win

- The player with a final sum closer to 1,000 wins.

Name _____ Date _____

CENTER
Recording Sheet

Target Numbers

Stage 6

Number cards	Equation
_____ hundreds _____ tens _____ ones	☐ + ☐ = ☐
_____ hundreds _____ tens _____ ones	☐ + ☐ = ☐
_____ hundreds _____ tens _____ ones	☐ + ☐ = ☐
_____ hundreds _____ tens _____ ones	☐ + ☐ = ☐

Target Numbers

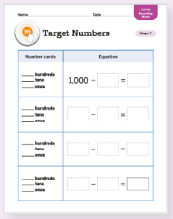
Stage 7

Let's subtract hundreds, tens and ones from three-digit numbers.

Pairs

You'll need . . .

Number Cards, 1–9



Recording Sheet

Set-up

- Place the number cards facedown in a pile.

How to Play

1. Draw the top 5 number cards. Choose 1 card to represent the hundreds, 1 card to represent the tens, and 1 card to represent the ones to make a three-digit number to subtract from the starting number.
2. Record your number to create a subtraction expression. Complete the equation by determining the difference.
3. Record the difference from the previous equation as the starting number in your next equation.
4. Take turns until each player's Recording Sheet is full.

How to Win

- The player with a final difference closer to 0 wins.

Name _____ Date _____

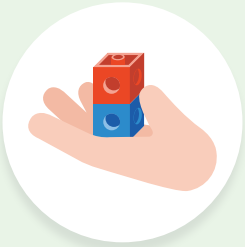
CENTER
Recording Sheet

Target Numbers

Stage 7

Number cards	Equation
_____ hundreds _____ tens _____ ones	1,000 − ☐ = ☐
_____ hundreds _____ tens _____ ones	☐ − ☐ = ☐
_____ hundreds _____ tens _____ ones	☐ − ☐ = ☐
_____ hundreds _____ tens _____ ones	☐ − ☐ = ☐

CENTER
Directions



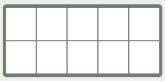
What's Behind My Back?

Stage 3

Let's figure out the missing part to make 10.

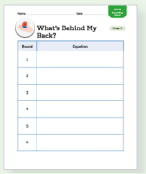
Pairs

You'll need . . .



10-frame

10 connecting cubes



Recording Sheet

Set-up

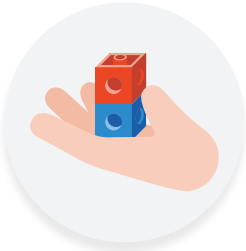
- Build a tower of 10 connecting cubes.

How to Play

1. **Player A:** Hide the tower of 10 connecting cubes behind your back and break off some cubes. Show your partner the rest.
2. **Player B:** Write an equation with a blank space to show what is missing.
3. **Player A:** Ask, "How many are behind my back? How do you know?"
4. **Player B:** Record the equation on the Recording Sheet. Switch roles and repeat.
5. Continue playing until your Recording Sheet is full.

Name _____ Date _____

CENTER
Recording Sheet

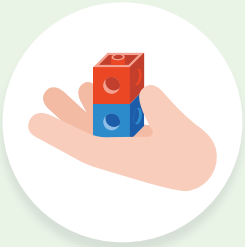


What's Behind My Back?

Stage 3

Round	Equation
1	
2	
3	
4	
5	
6	

CENTER
Directions



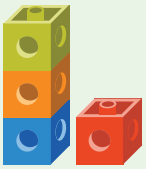
What's Behind My Back?

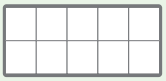
Stage 5

Let's figure out the missing part to make 20.

Pairs

You'll need . . .


20 connecting cubes


double 10-frame


Recording Sheet

Set-up

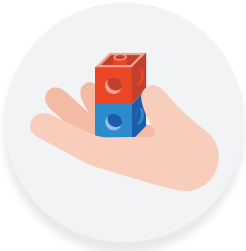
- Build a tower of 20 connecting cubes.

How to Play

1. **Player A:** Hold 2 towers of 10 cubes behind your back and break off some cubes. Show your partner the rest.
2. **Player B:** Write an equation with a blank space to show what is missing.
3. **Player A:** Ask, "How many are behind my back? How do you know?"
4. **Player B:** Record the equation on the Recording Sheet.
5. Switch roles and repeat.
6. Continue playing until your Recording Sheet is full.

Name _____ Date _____

CENTER
Recording Sheet



What's Behind My Back?

Stage 5

Round	Equation
1	
2	
3	
4	
5	
6	

Work Mats, Cards, and Grids

Digit Cards

Directions: Make enough copies so that each pair receives one strip. Pre-cut each row and distribute one strip to each pair.

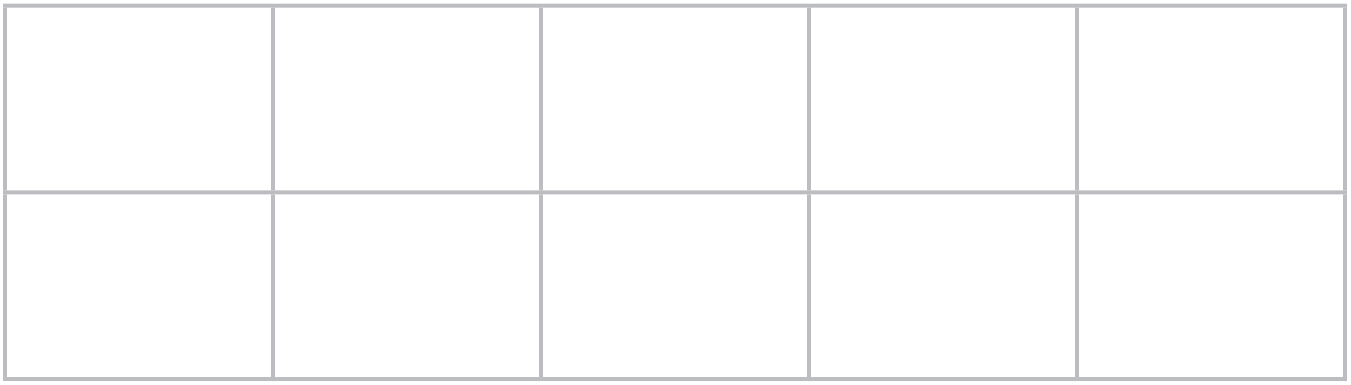
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

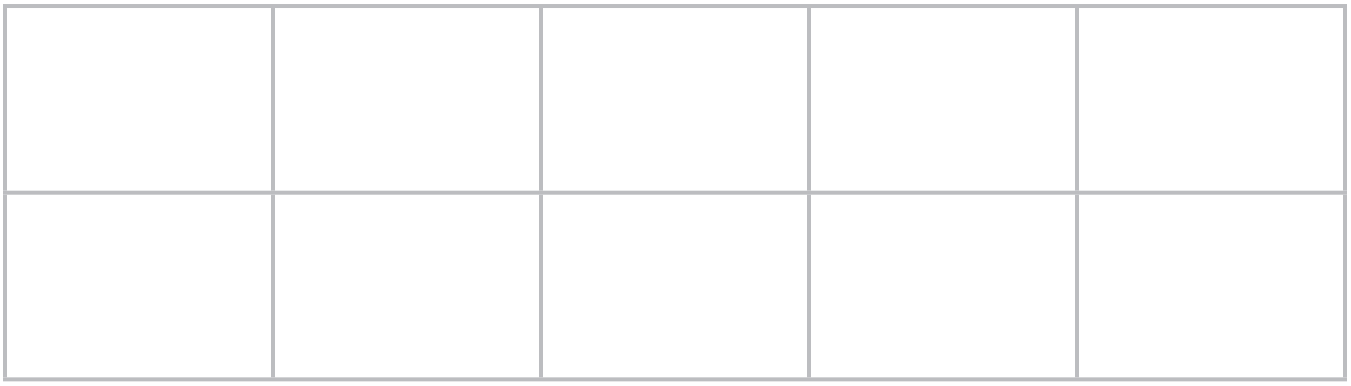
Number Cards, 0–10

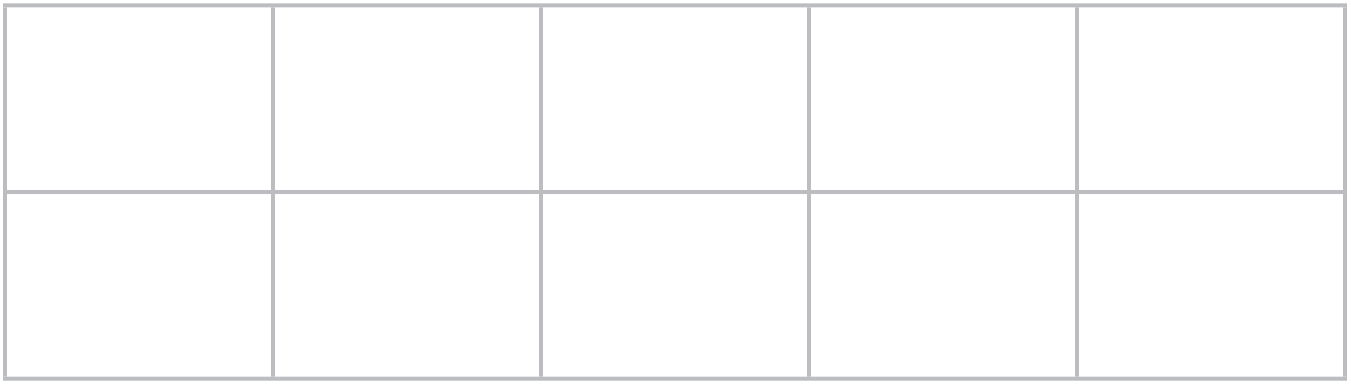
Directions: Make as many copies as are needed; four copies of this page creates one set of cards. Cut out the cards to create a set of cards that will be used throughout the year.

1 Number Cards, 0–10	2 Number Cards, 0–10	3 Number Cards, 0–10
4 Number Cards, 0–10	5 Number Cards, 0–10	6 Number Cards, 0–10
7 Number Cards, 0–10	8 Number Cards, 0–10	9 Number Cards, 0–10
10 Number Cards, 0–10	0 Number Cards, 0–10	

10-Frames





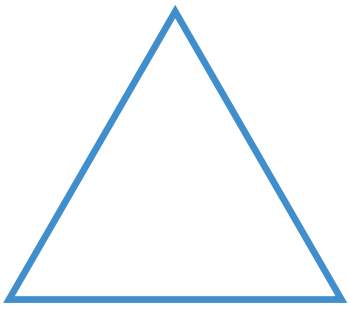


Shape Cards, Grade 2

CENTER
Cards
(p. 1 of 2)

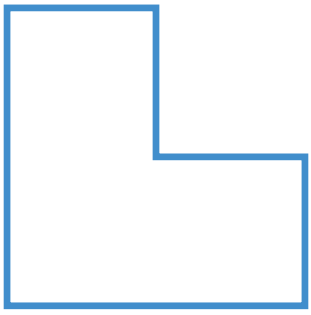
Directions: Make one copy per pair. Pre-cut the cards and distribute them so that each pair of students receives one set of cards.

A



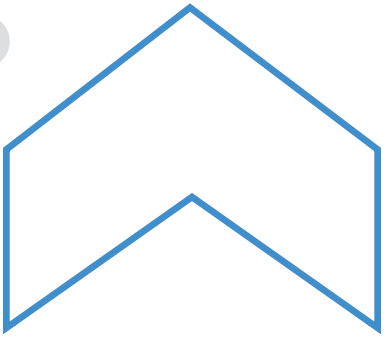
Shape Cards, Grade 2

B



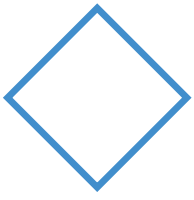
Shape Cards, Grade 2

C



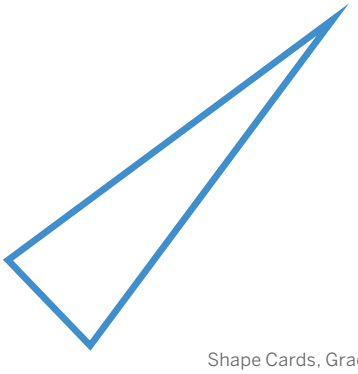
Shape Cards, Grade 2

D



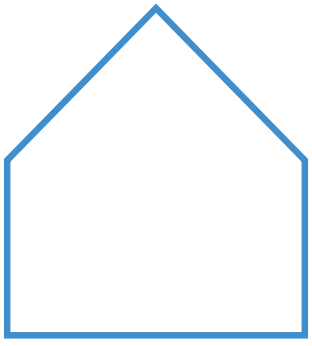
Shape Cards, Grade 2

E



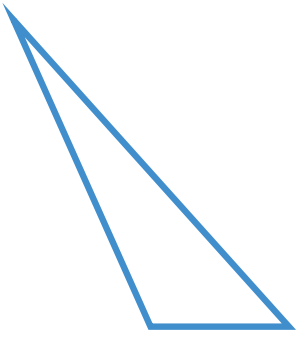
Shape Cards, Grade 2

F



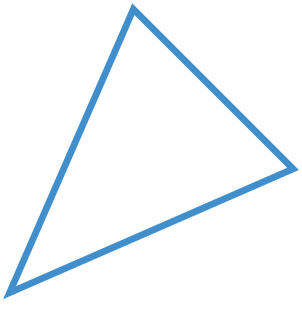
Shape Cards, Grade 2

G



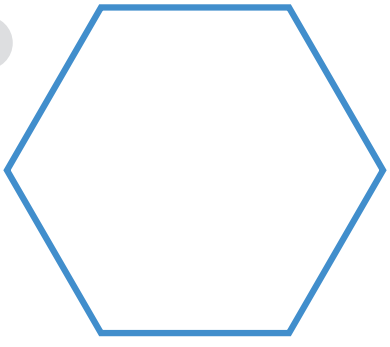
Shape Cards, Grade 2

H



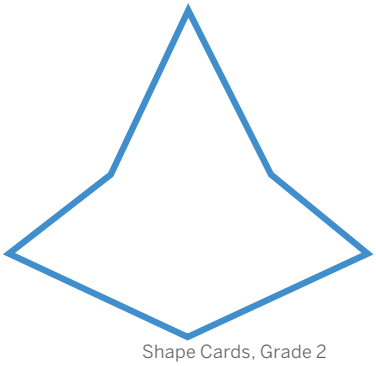
Shape Cards, Grade 2

I



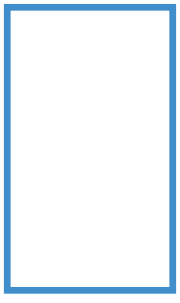
Shape Cards, Grade 2

J



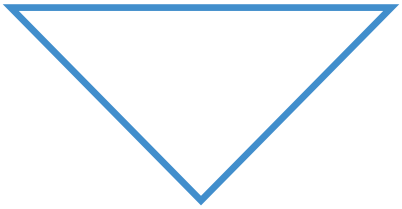
Shape Cards, Grade 2

K



Shape Cards, Grade 2

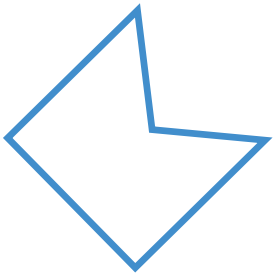
L



Shape Cards, Grade 2

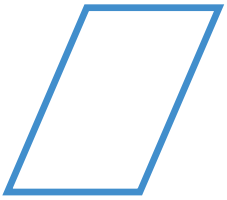
Shape Cards, Grade 2

M



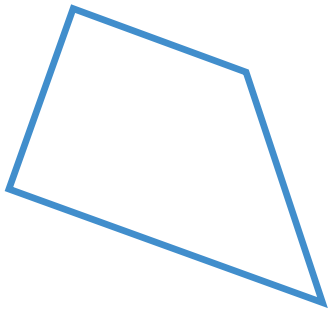
Shape Cards, Grade 2

N



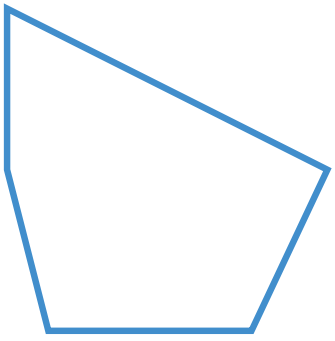
Shape Cards, Grade 2

O



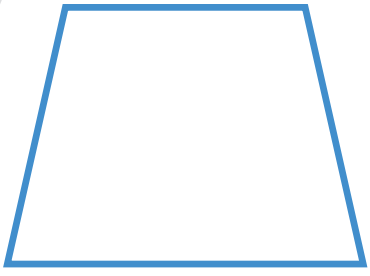
Shape Cards, Grade 2

P



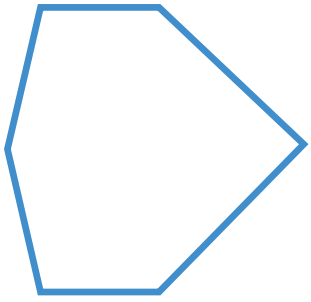
Shape Cards, Grade 2

Q



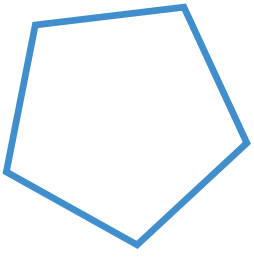
Shape Cards, Grade 2

R



Shape Cards, Grade 2

S

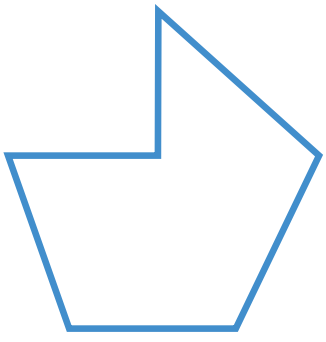


Shape Cards, Grade 2

T

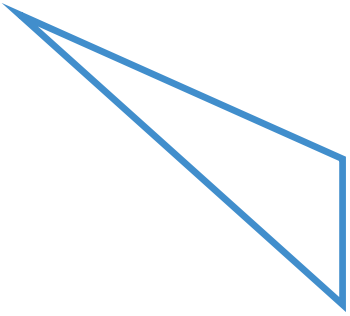
Shape Cards, Grade 2

U



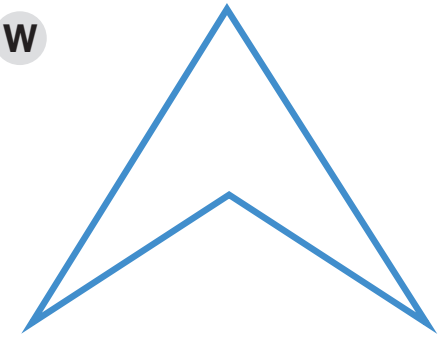
Shape Cards, Grade 2

V



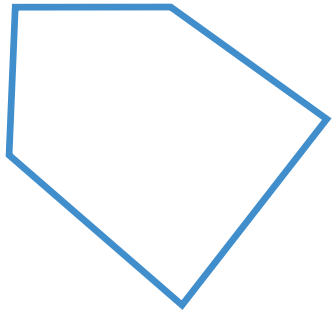
Shape Cards, Grade 2

W



Shape Cards, Grade 2

X



Shape Cards, Grade 2

Work Mat