

GRADE 1 BOOK OF SPRINTS

New York State Common Core

Mathematics Curriculum




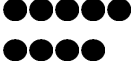




























GRADE 1 • MODULE 1

Sums and Differences to 10

Module Overview	i
Topic A: Embedded Numbers and Decompositions.....	1.A.1
Topic B: Counting On From Embedded Numbers	1.B.1
Topic C: Addition Word Problems	1.C.1
Topic D: Strategies for Counting On.....	1.D.1
Topic E: The Commutative Property of Addition and the Equal Sign.....	1.E.1
Topic F: Development of Addition Fluency Within 10.....	1.F.1
Topic G: Subtraction as an Unknown Addend Problem	1.G.1
Topic H: Subtraction Word Problems	1.H.1
Topic I: Decomposition Strategies for Subtraction	1.I.1
Topic J: Development of Subtraction Fluency Within 10	1.J.1
Module Assessments	1.S.1




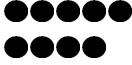

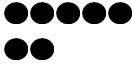

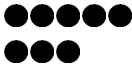

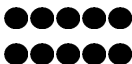

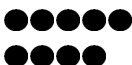

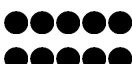








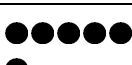



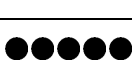



Name _____ Date _____

*Write the number of dots. Find 1 or 2 groups that make finding the total number of dots easier!

1			16		
2			17		
3			18		
4			19		
5			20		
6			21		
7			22		
8			23		
9			24		
10			25		
11			26		
12			27		
13			28		
14			29		
15			30		

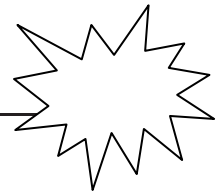
Name _____ Date _____

*Write the number of dots. Find 1 or 2 groups that make finding the total number of dots easier!

1			16		
2			17		
3			18		
4			19		
5			20		
6			21		
7			22		
8			23		
9			24		
10			25		
11			26		
12			27		
13			28		
14			29		
15			30		

Name _____

Date _____



Number Bond Dash!

Directions: Do as many as you can in 60 seconds. Write the amount you finished here:

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.

Number correct:



A

Name _____

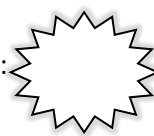
Date _____

*Write the number that is 1 more.

1			16		
2			17	9	
3			18	7	
4			19		
5			20	8	
6			21	7	
7			22		
8	5		23		
9			24	10	
10	6		25		
11			26		
12	7		27		
13			28	9	
14			29		
15	8		30		

B

Number correct:



Name _____

Date _____

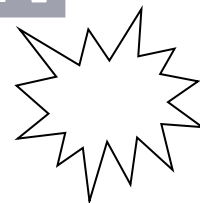
*Write the number that is 1 more.

1	●●		16	●●●●●● ●●●●	
2	●		17	8	
3	●●		18	9	
4	●●●		19	●●●●●● ●●●●	
5	●●●●		20	●●●●●● ●●●●●●	
6	●●●●●		21	10	
7	●●●●●		22	●●●●●● ●●●●	
8	4		23	●●●●●● ●●●●●●	
9	●●●●●●		24	10	
10	5		25	●●●●●● ●●●●●●	
11	●●●●●●		26	●● ●● ●● ●● ●●	
12	7		27	●● ●● ●● ●●	
13	●●●●●● ●●		28	8	
14	●●●●●● ●		29	●● ●● ●● ●● ●●	
15	6		30	●●●● ●●●● ●● ●●●●	

Shake Those Disks! - 6

<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">6</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">0</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">6</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">6</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">1</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">5</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">6</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">2</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">4</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">6</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">3</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">3</div> </div> </div>

© Kelly Spinks



Name _____

Date _____

Number Bond Dash!

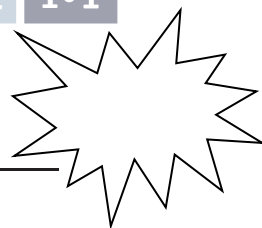
Directions: Do as many as you can in 90 seconds. Write the amount you finished here:

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.

© Kelly Spinks

Name _____

Date _____



Number Bond Dash!

Directions: Do as many as you can in 90 seconds. Write the amount you finished here:

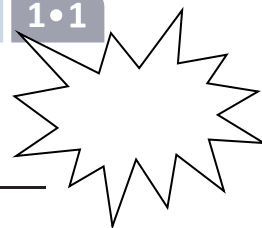
1.	2.	3.	4.	5.
6.	7.	8.	9.	10.
11.	12.	13.	14.	15.
16.	17.	18.	19.	20.
21.	22.	23.	24.	25.

© Kelly Spinks

Shake Those Disks! - 8

<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">8</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">0</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">8</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">8</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">1</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">7</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">8</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">2</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">6</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">8</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">3</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">5</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">8</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">4</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; font-size: 24px;">4</div> </div> </div>

© Kelly Spinks



Name _____

Date _____

Number Bond Dash!

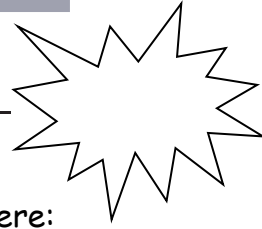
Directions: Do as many as you can in 90 seconds. Write the amount you finished here:

1.	2.	3.	4.	5.
6.	7.	8.	9.	10.
11.	12.	13.	14.	15.
16.	17.	18.	19.	20.
21.	22.	23.	24.	2.

© Kelly Spinks

Name _____

Date _____



Number Bond Dash!

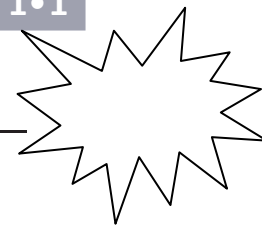
Directions: Do as many as you can in 90 seconds. Write the amount you finished here:

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.	

© Kelly Spinks

Name _____

Date _____



Number Bond Dash!

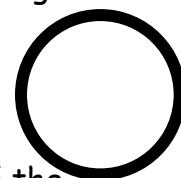
Directions: Do as many as you can in 90 seconds. Write the amount you finished here:

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.	

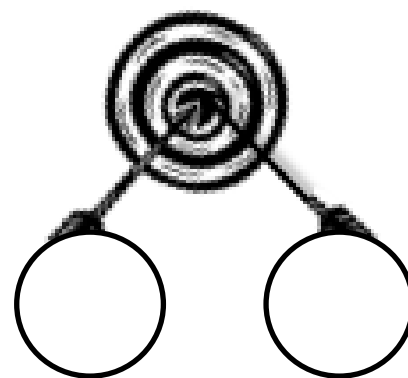
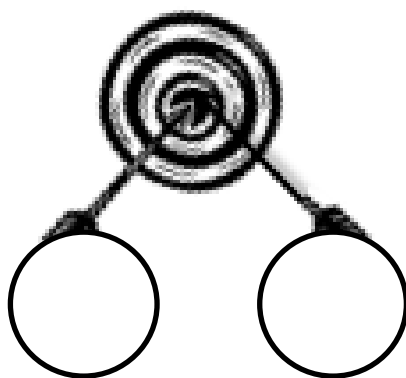
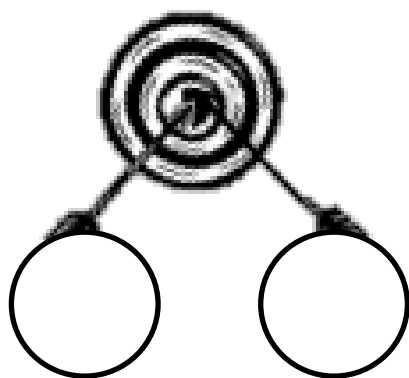
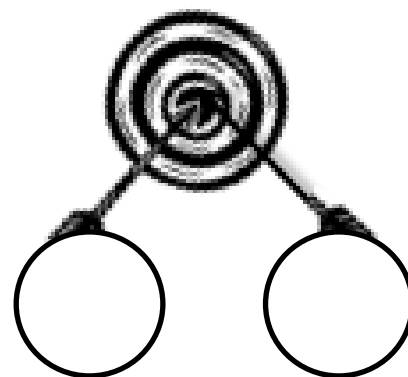
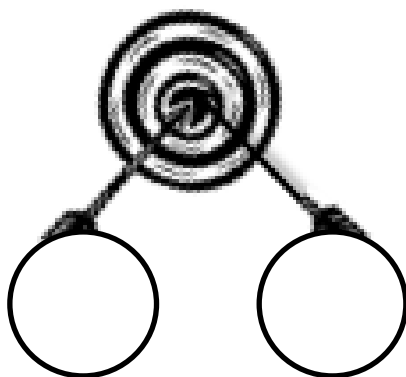
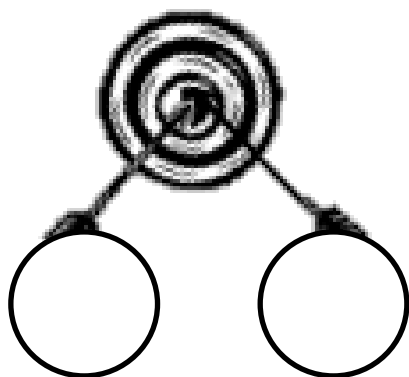
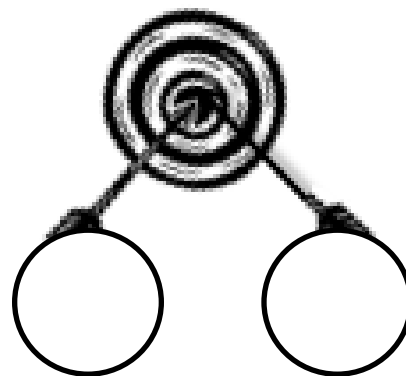
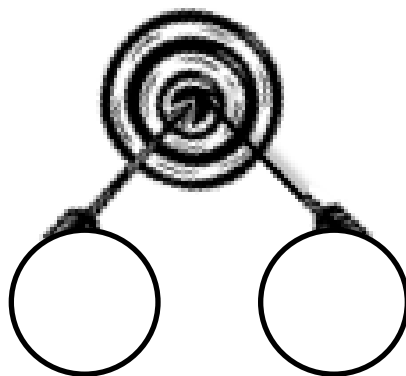
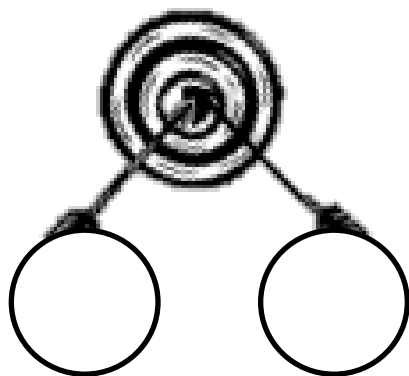
© Kelly Spinks

Target Number:

Target Practice

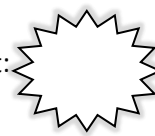


Directions: Choose a *target number* between 6 and 10 and write it in the middle of the circle on the top of the page. Roll a die. Write the number rolled in the circle at the end one of the arrows. Then, make a bull's-eye by writing the number needed to make your target in the other circle.



A

Number correct:



Name _____

Date _____

*Count on to add.

1	1 + 1 ● ●		16	4 + 3 ● ● ●	
2	2 + 1 ● ● ●		17	5 + 3 ● ● ●	
3	3 + 1 ● ● ● ●		18	7 + 3 ● ● ●	
4	3 + 2 ● ● ● ● ●		19	7 + 2 ● ●	
5	1 + 2 ● ● ●		20	8 + 2 ● ●	
6	2 + 2 ● ● ● ●		21	6 + 2 ● ●	
7	2 + 3 ● ● ● ● ●		22	6 + 1 ●	
8	2 + 1 ●		23	6 + 1	
9	2 + 2 ● ●		24	6 + 2	
10	3 + 2 ● ●		25	7 + 2	
11	5 + 2 ● ●		26	8 + 2	
12	8 + 2 ● ●		27	2 + 8	
13	8 + 1 ●		28	2 + 6	
14	7 + 1 ●		29	3 + 6	
15	9 + 1 ●		30	4 + 5	

B

Number correct:



Name _____

Date _____

*Count and write the number.

1	1 + 1 ● ●		16	4 + 2 ● ●	
2	2 + 2 ● ● ● ●		17	3 + 2 ● ●	
3	3 + 2 ● ● ● ● ●		18	5 + 2 ● ●	
4	2 + 2 ● ● ● ●		19	7 + 2 ● ●	
5	2 + 1 ● ● ●		20	7 + 3 ● ● ●	
6	3 + 1 ● ● ● ●		21	6 + 3 ● ● ●	
7	3 + 2 ● ● ● ● ●		22	6 + 2 ● ●	
8	3 + 2 ● ●		23	6 + 2	
9	2 + 2 ● ●		24	5 + 2	
10	4 + 2 ● ●		25	7 + 2	
11	1 + 2 ● ●		26	6 + 2	
12	2 + 1 ●		27	2 + 6	
13	3 + 1 ●		28	2 + 7	
14	5 + 1 ●		29	3 + 7	
15	7 + 1 ●		30	4 + 7	

Shake Those Disks! - 7

<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">7</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">0</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">7</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">7</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">1</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">6</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">7</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">2</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">5</div> </div> </div>	<div style="text-align: center;"> <div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center; font-size: 24px;">7</div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">3</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">4</div> </div> </div>

© Kelly Spinks

Number correct:



A

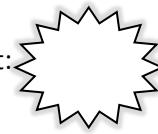
Name _____

Date _____

*Count On to Add

1	$1 + 1$		16	$4 + 3$	
2	$2 + 1$		17	$3 + 3$	
3	$3 + 1$		18	$4 + 3$	
4	$3 + 2$		19	$3 + 4$	
5	$2 + 2$		20	$2 + 4$	
6	$3 + 2$		21	$4 + 2$	
7	$2 + 2$		22	$5 + 2$	
8	$3 + 0$		23	$2 + 5$	
9	$3 + 1$		24	$2 + 6$	
10	$3 + 2$		25	$6 + 3$	
11	$5 + 2$		26	$3 + 6$	
12	$5 + 3$		27	$2 + 7$	
13	$5 + 2$		28	$3 + 7$	
14	$5 + 3$		29	$2 + 8$	
15	$6 + 3$		30	$3 + 6$	

Number correct:

**B**

Name _____

Date _____

*Count On to Add.

1	$2 + 1$		16	$4 + 3$	
2	$1 + 1$		17	$3 + 3$	
3	$2 + 1$		18	$2 + 3$	
4	$2 + 2$		19	$1 + 3$	
5	$3 + 2$		20	$0 + 3$	
6	$2 + 2$		21	$1 + 3$	
7	$3 + 2$		22	$2 + 5$	
8	$3 + 1$		23	$5 + 2$	
9	$5 + 1$		24	$2 + 6$	
10	$6 + 1$		25	$6 + 2$	
11	$6 + 2$		26	$3 + 6$	
12	$5 + 2$		27	$3 + 7$	
13	$6 + 2$		28	$2 + 7$	
14	$6 + 3$		29	$2 + 6$	
15	$5 + 3$		30	$3 + 6$	

Friendly Fact Go Around: Addition Strategies Review

$2 + 1 = \square$

$3 + 1 = \square$

$5 + 1 = \square$

$4 + 1 = \square$

$6 + 1 = \square$

$9 + 1 = \square$

$2 + 2 = \square$

$2 + 3 = \square$

$5 + 5 = \square$

$3 + 3 = \square$

$4 + 4 = \square$

$4 + 5 = \square$

$0 + 1 = \square$

$1 + 3 = \square$

$1 + 1 = \square$

$2 + 2 = \square$

$7 + 1 = \square$

$3 + 3 = \square$

$1 + 5 = \square$

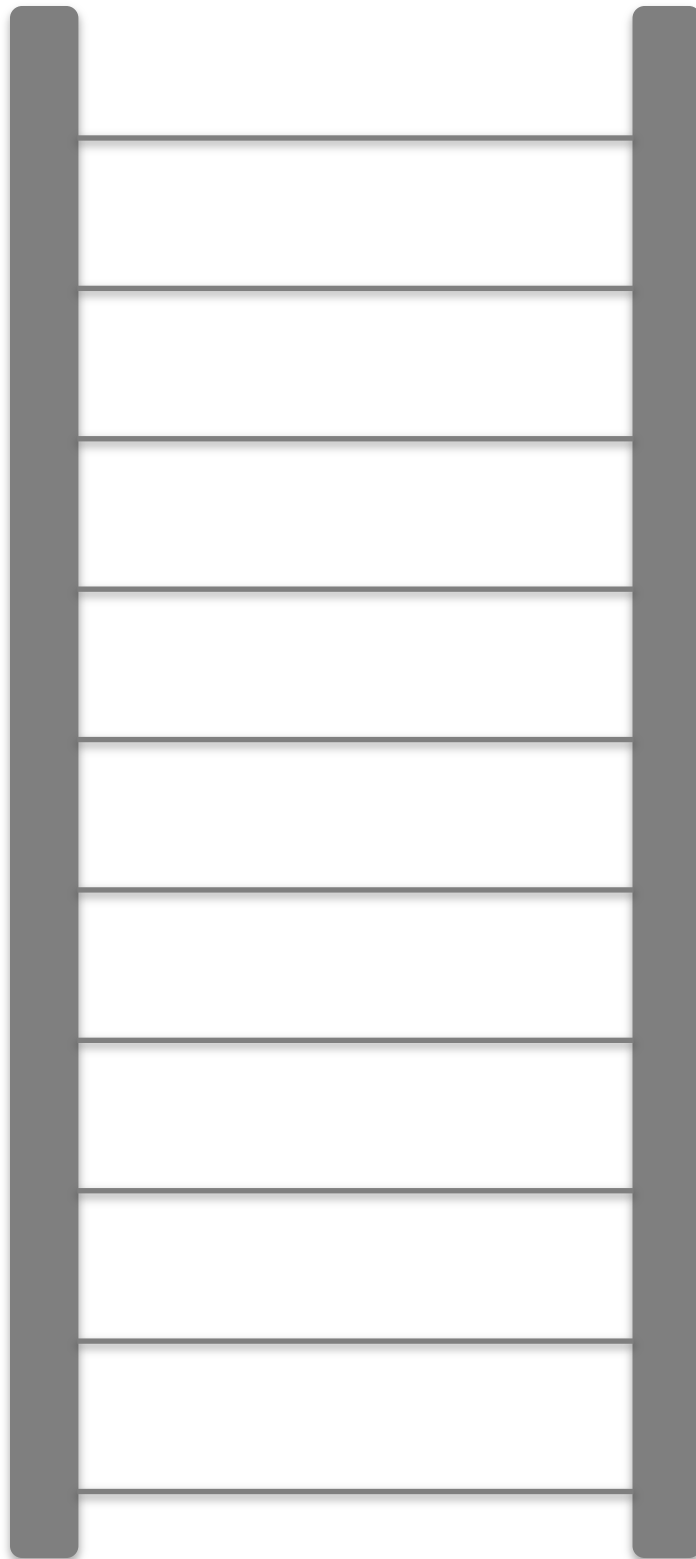
$5 + 5 = \square$

$3 + 4 = \square$

$8 + 1 = \square$

$4 + 4 = \square$

$5 + 4 = \square$



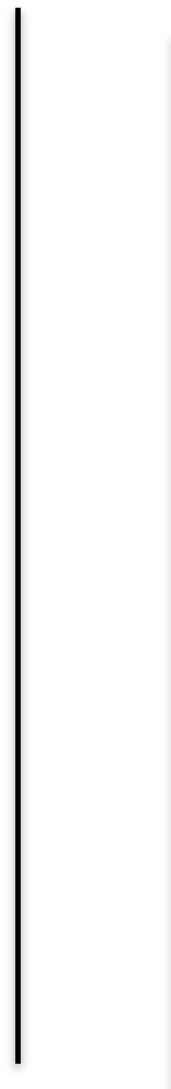
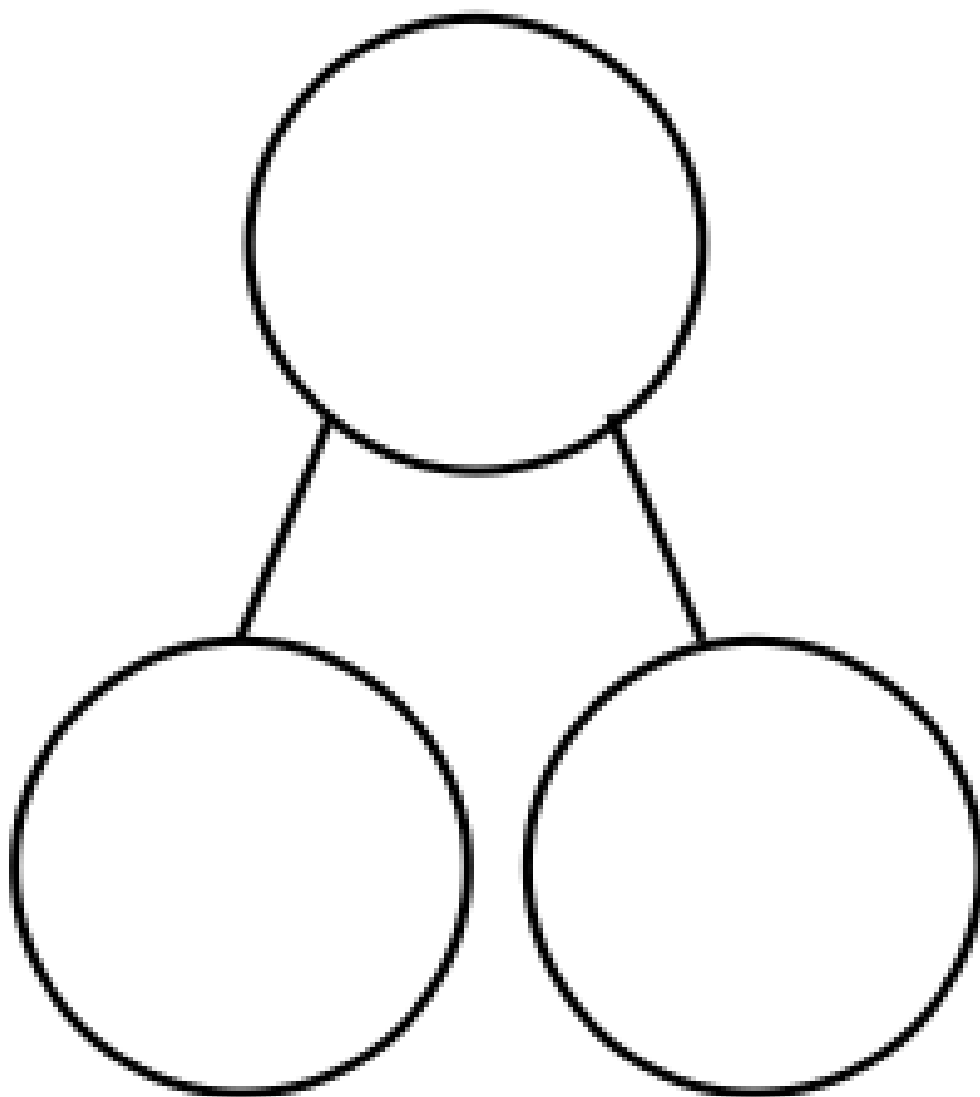
Name _____

Date _____



Race to the Top!

2	4	6	0	8	10



1
2
3
4
5
6
7
8
9
10

<input type="text"/>	<input type="text"/>
=	=
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

A

Number correct:



Name _____

Date _____

*Write the number that is 1 less

1	5		16	10	
2	4		17	8	
3	3		18	11	
4	5		19	10	
5	3		20	9	
6	1		21	1	
7	4		22	11	
8	5		23	21	
9	7		24	4	
10	6		25	14	
11	7		26	24	
12	9		27	10	
13	8		28	20	
14	9		29	21	
15	10		30	31	

B

Number correct:



Name _____

Date _____

*Write the number that is 1 less.

1	3		16	10	
2	2		17	9	
3	1		18	11	
4	6		19	9	
5	4		20	13	
6	2		21	11	
7	1		22	1	
8	3		23	11	
9	5		24	21	
10	7		25	5	
11	10		26	15	
12	9		27	25	
13	8		28	20	
14	6		29	10	
15	7		30	21	

A

Correct _____

Add.

1	$3 + 1 =$		23	$1 + 2 =$	
2	$4 + 1 =$		24	$3 + 6 =$	
3	$5 + 1 =$		25	$1 + 8 =$	
4	$9 + 1 =$		26	$2 + 3 =$	
5	$6 + 1 =$		27	$1 + 4 =$	
6	$8 + 1 =$		28	$2 + 4 =$	
7	$2 + 1 =$		29	$1 + 3 =$	
8	$7 + 1 =$		30	$1 + 5 =$	
9	$1 + 7 =$		31	$3 + 3 =$	
10	$1 + 9 =$		32	$4 + 3 =$	
11	$1 + 6 =$		33	$5 + 3 =$	
12	$2 + 2 =$		34	$6 + 3 =$	
13	$3 + 2 =$		35	$7 + 3 =$	
14	$4 + 2 =$		36	$3 + 7 =$	
15	$8 + 2 =$		37	$3 + 4 =$	
16	$5 + 2 =$		38	$3 + 5 =$	
17	$6 + 2 =$		39	$4 + 4 =$	
18	$7 + 2 =$		40	$5 + 4 =$	
19	$2 + 7 =$		41	$6 + 4 =$	
20	$2 + 8 =$		42	$4 + 6 =$	
21	$2 + 5 =$		43	$4 + 5 =$	
22	$2 + 6 =$		44	$5 + 5 =$	

© Bill Davidson

B

Improvement _____

Correct _____

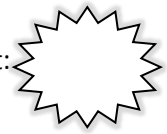
Add.

1	$2 + 1 =$		23	$1 + 8 =$	
2	$3 + 1 =$		24	$3 + 7 =$	
3	$4 + 1 =$		25	$1 + 5 =$	
4	$8 + 1 =$		26	$2 + 4 =$	
5	$5 + 1 =$		27	$1 + 4 =$	
6	$7 + 1 =$		28	$2 + 3 =$	
7	$9 + 1 =$		29	$1 + 3 =$	
8	$6 + 1 =$		30	$1 + 2 =$	
9	$1 + 6 =$		31	$3 + 3 =$	
10	$1 + 9 =$		32	$4 + 3 =$	
11	$1 + 7 =$		33	$5 + 3 =$	
12	$2 + 2 =$		34	$7 + 3 =$	
13	$3 + 2 =$		35	$6 + 3 =$	
14	$4 + 2 =$		36	$3 + 6 =$	
15	$7 + 2 =$		37	$3 + 5 =$	
16	$5 + 2 =$		38	$3 + 4 =$	
17	$8 + 2 =$		39	$4 + 4 =$	
18	$6 + 2 =$		40	$5 + 4 =$	
19	$2 + 6 =$		41	$6 + 4 =$	
20	$2 + 8 =$		42	$4 + 6 =$	
21	$2 + 5 =$		43	$4 + 5 =$	
22	$2 + 7 =$		44	$5 + 5 =$	

© Bill Davidson

A

Number correct:



Name _____

Date _____

*Write the missing number from each subtraction sentence. Pay attention to the = sign.

1	$2 - 1 = \square$		16	$\square = 10 - 0$	
2	$1 - 1 = \square$		17	$\square = 10 - 1$	
3	$1 - 0 = \square$		18	$\square = 9 - 1$	
4	$3 - 1 = \square$		19	$\square = 7 - 1$	
5	$3 - 0 = \square$		20	$\square = 6 - 1$	
6	$4 - 0 = \square$		21	$\square = 6 - 0$	
7	$4 - 1 = \square$		22	$\square = 8 - 0$	
8	$5 - 1 = \square$		23	$8 - \square = 8$	
9	$6 - 1 = \square$		24	$\square - 0 = 8$	
10	$6 - 0 = \square$		25	$7 - \square = 6$	
11	$8 - 0 = \square$		26	$7 = 7 - \square$	
12	$10 - 0 = \square$		27	$9 = 9 - \square$	
13	$9 - 0 = \square$		28	$\square - 1 = 7$	
14	$9 - 1 = \square$		29	$\square - 0 = 8$	
15	$10 - 1 = \square$		30	$9 = \square - 1$	

B

Number correct:



Name _____

Date _____

*Write the missing number from each subtraction sentence. Pay attention to the = sign.

1	$3 - 1 = \square$		16	$\square = 10 - 1$	
2	$2 - 1 = \square$		17	$\square = 9 - 1$	
3	$1 - 1 = \square$		18	$\square = 7 - 1$	
4	$1 - 0 = \square$		19	$\square = 7 - 0$	
5	$2 - 0 = \square$		20	$\square = 8 - 0$	
6	$4 - 0 = \square$		21	$\square = 10 - 0$	
7	$5 - 1 = \square$		22	$\square = 9 - 1$	
8	$7 - 1 = \square$		23	$9 - \square = 8$	
9	$8 - 1 = \square$		24	$\square - 1 = 8$	
10	$9 - 0 = \square$		25	$7 - \square = 6$	
11	$10 - 0 = \square$		26	$6 = 7 - \square$	
12	$7 - 0 = \square$		27	$9 = 9 - \square$	
13	$8 - 0 = \square$		28	$\square - 0 = 9$	
14	$10 - 1 = \square$		29	$\square - 0 = 10$	
15	$9 - 1 = \square$		30	$8 = \square - 1$	

A

Name _____ Date _____

Write the missing number from each subtraction sentence. Pay attention to the = sign.

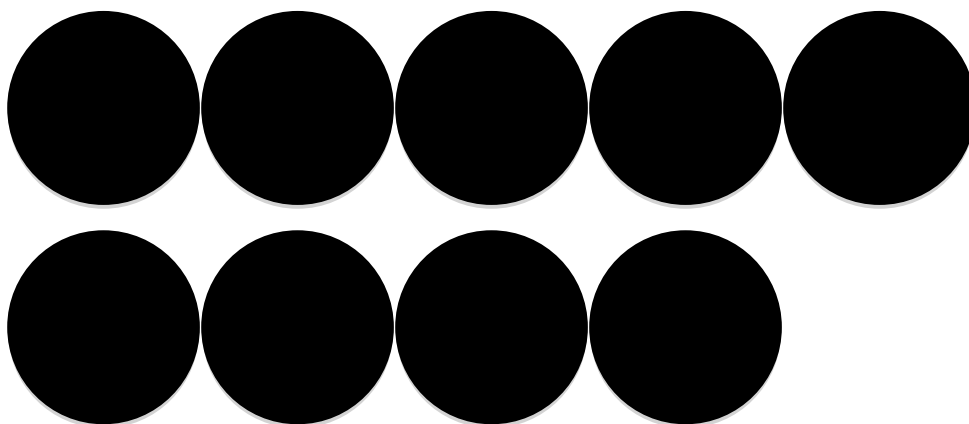
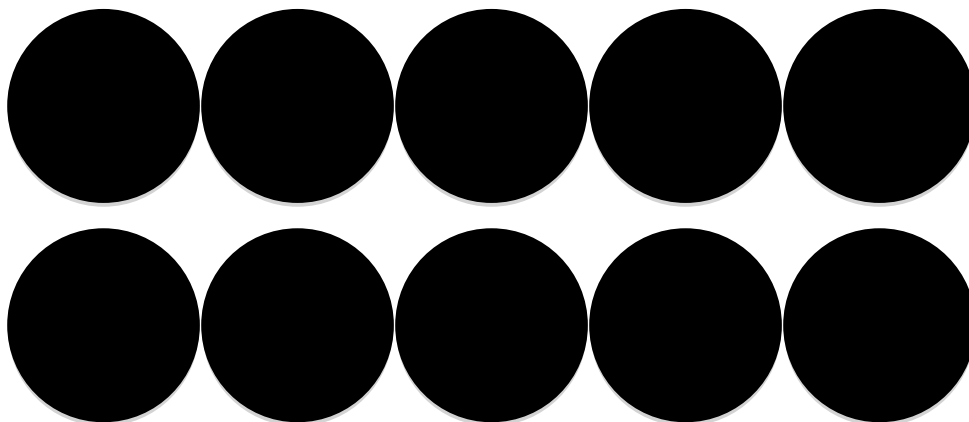
1	$2 - 2 = \square$		16	$0 = 10 - \square$	
2	$1 - 1 = \square$		17	$0 = 9 - \square$	
3	$1 - 0 = \square$		18	$0 = 8 - \square$	
4	$3 - 3 = \square$		19	$0 = 6 - \square$	
5	$3 - 2 = \square$		20	$1 = 6 - \square$	
6	$4 - 4 = \square$		21	$1 = 7 - \square$	
7	$4 - 3 = \square$		22	$1 = 10 - \square$	
8	$6 - 6 = \square$		23	$10 - \square = 1$	
9	$7 - 7 = \square$		24	$\square - 9 = 1$	
10	$8 - 8 = \square$		25	$7 - \square = 0$	
11	$8 - 7 = \square$		26	$0 = 7 - \square$	
12	$9 - 9 = \square$		27	$0 = 9 - \square$	
13	$9 - 8 = \square$		28	$\square - 8 = 0$	
14	$10 - 10 = \square$		29	$\square - 7 = 1$	
15	$10 - 9 = \square$		30	$1 = \square - 5$	

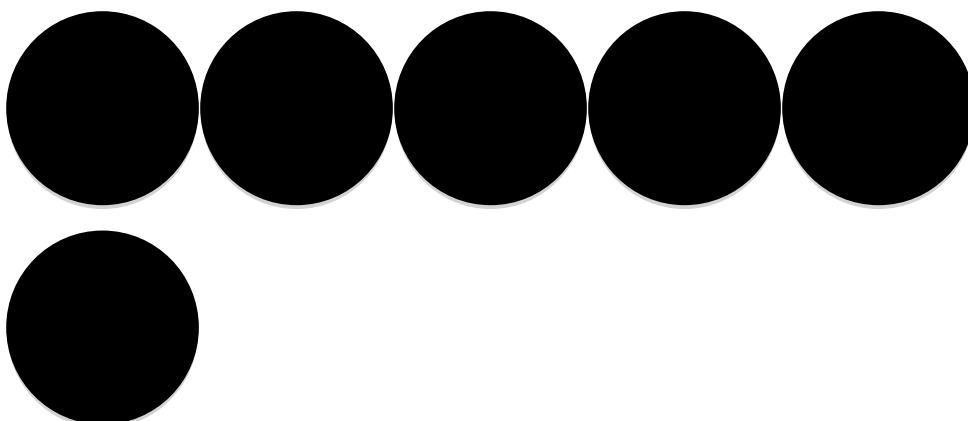
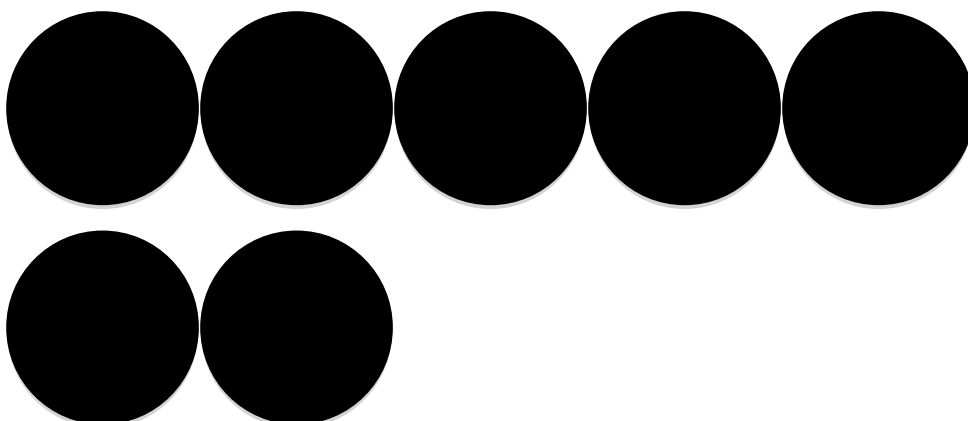
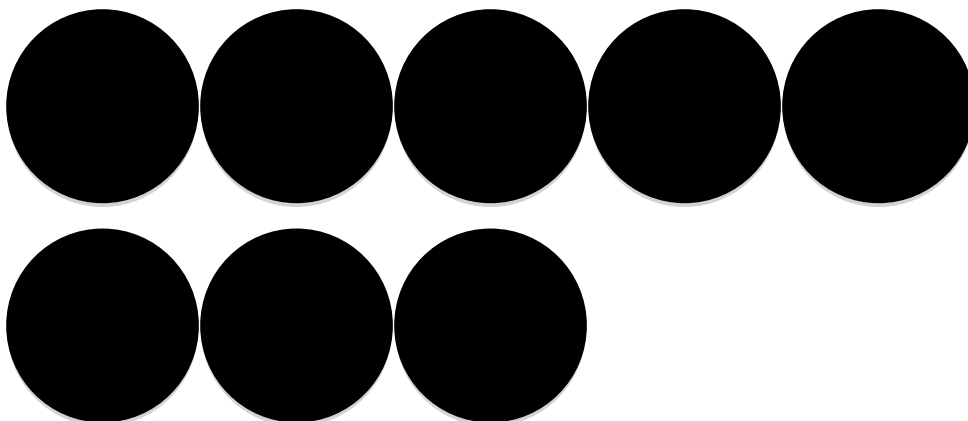
B

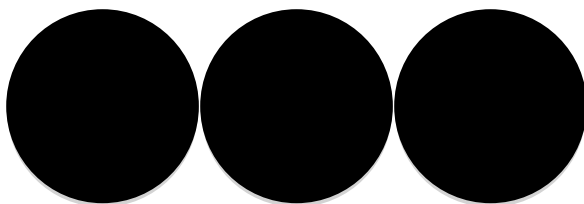
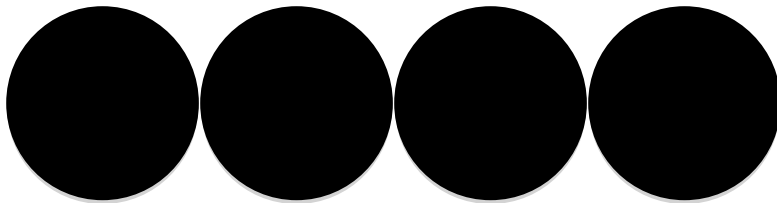
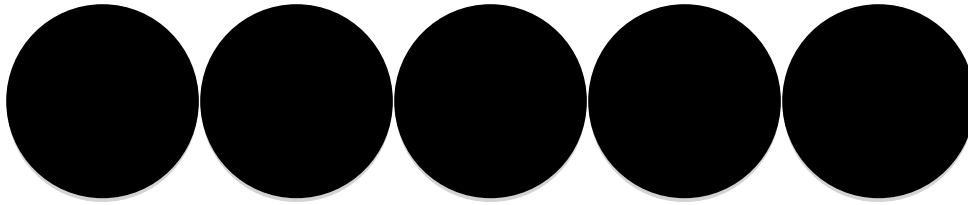
Name _____ Date _____

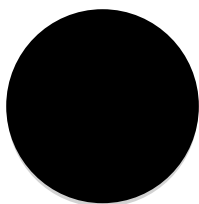
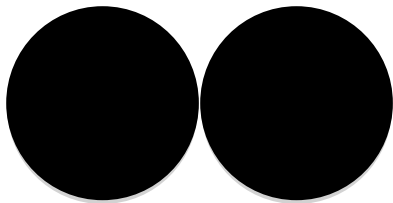
Write the missing number from each subtraction sentence. Pay attention to the = sign.

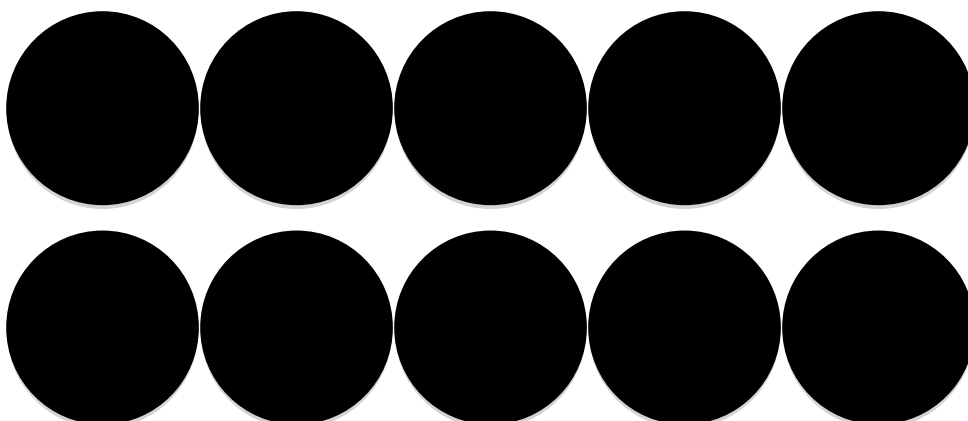
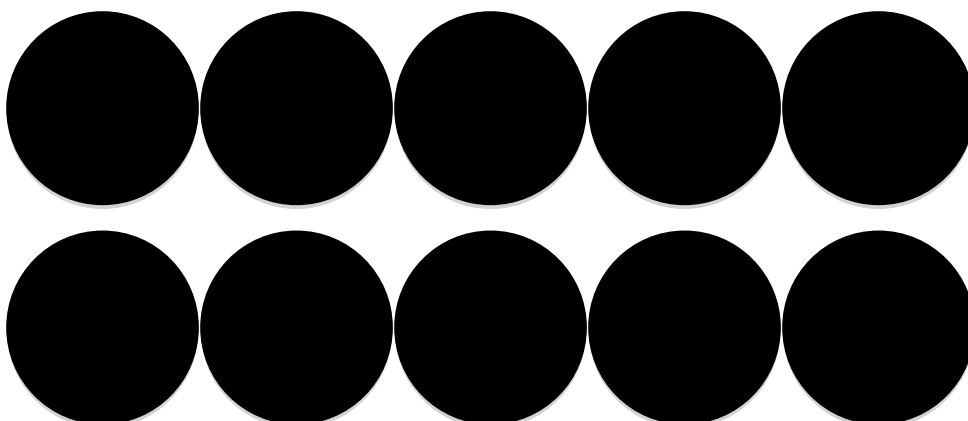
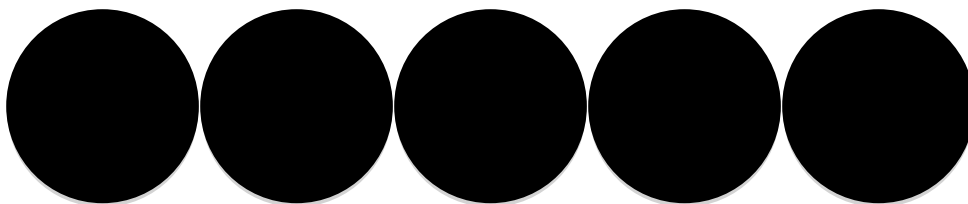
1	$3 - 3 = \square$		16	$0 = 6 - \square$	
2	$2 - 2 = \square$		17	$0 = 7 - \square$	
3	$1 - 1 = \square$		18	$0 = 8 - \square$	
4	$1 - 0 = \square$		19	$0 = 10 - \square$	
5	$2 - 1 = \square$		20	$1 = 10 - \square$	
6	$4 - 3 = \square$		21	$1 = 9 - \square$	
7	$5 - 4 = \square$		22	$1 = 7 - \square$	
8	$7 - 7 = \square$		23	$7 - \square = 1$	
9	$8 - 8 = \square$		24	$\square - 6 = 1$	
10	$9 - 9 = \square$		25	$6 - \square = 0$	
11	$10 - 10 = \square$		26	$0 = 6 - \square$	
12	$10 - 9 = \square$		27	$0 = 8 - \square$	
13	$8 - 7 = \square$		28	$\square - 8 = 0$	
14	$6 - 5 = \square$		29	$\square - 6 = 1$	
15	$6 - 6 = \square$		30	$1 = \square - 6$	

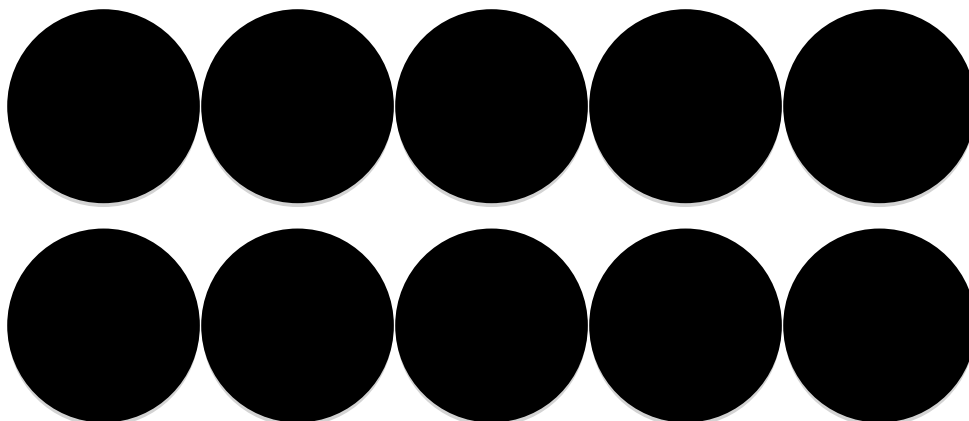


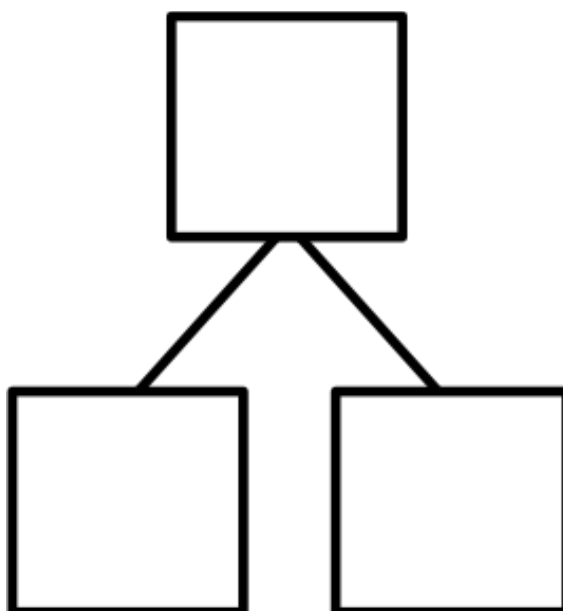






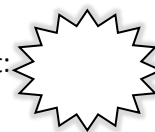






A

Number correct:



Name _____

Date _____

*Write the missing number from each subtraction sentence. Pay attention to the + and - signs.

1	$9 + 1 = \square$		16	$10 - 7 = \square$	
2	$1 + 9 = \square$		17	$10 = 7 + \square$	
3	$10 - 1 = \square$		18	$10 = 3 + \square$	
4	$10 - 9 = \square$		19	$10 = 6 + \square$	
5	$10 + 0 = \square$		20	$10 = 4 + \square$	
6	$0 + 10 = \square$		21	$10 = 5 + \square$	
7	$10 - 0 = \square$		22	$10 - \square = 5$	
8	$10 - 10 = \square$		23	$5 = 10 - \square$	
9	$8 + 2 = \square$		24	$6 = 10 - \square$	
10	$2 + 8 = \square$		25	$7 = 10 - \square$	
11	$10 - 2 = \square$		26	$7 = \square - 3$	
12	$10 - 8 = \square$		27	$4 = 10 - \square$	
13	$7 + 3 = \square$		28	$5 = \square - 5$	
14	$3 + 7 = \square$		29	$6 = 10 - \square$	
15	$10 - 3 = \square$		30	$7 = \square - 3$	

B

Number correct:



Name _____

Date _____

*Write the missing number from each number sentence. Pay attention to the + and - signs.

1	$8 + 2 = \square$		16	$10 - 6 = \square$	
2	$2 + 8 = \square$		17	$10 = 8 + \square$	
3	$10 - 2 = \square$		18	$10 = 7 + \square$	
4	$10 - 8 = \square$		19	$10 = 3 + \square$	
5	$9 + 1 = \square$		20	$10 = 4 + \square$	
6	$1 + 9 = \square$		21	$10 = 5 + \square$	
7	$10 - 1 = \square$		22	$10 - \square = 5$	
8	$10 - 9 = \square$		23	$6 = 10 - \square$	
9	$10 + 0 = \square$		24	$7 = 10 - \square$	
10	$0 + 10 = \square$		25	$8 = 10 - \square$	
11	$10 - 0 = \square$		26	$7 = \square - 3$	
12	$10 - 10 = \square$		27	$2 = 10 - \square$	
13	$6 + 4 = \square$		28	$4 = \square - 6$	
14	$4 + 6 = \square$		29	$3 = 10 - \square$	
15	$10 - 4 = \square$		30	$7 = \square - 3$	

A Number Correct _____

1	8 and 2 make <input type="text"/>		16	11 is 10 and <input type="text"/>	
2	9 and 1 make <input type="text"/>		17	11 is 1 and <input type="text"/>	
3	7 and 3 make <input type="text"/>		18	12 is 2 and <input type="text"/>	
4	6 and <input type="text"/> make 10		19	11 is <input type="text"/> and 1	
5	4 and <input type="text"/> make 10		20	14 is 10 and <input type="text"/>	
6	5 and <input type="text"/> make 10		21	15 is <input type="text"/> and 5	
7	<input type="text"/> and 5 make 10		22	18 is 10 and <input type="text"/>	
8	13 is 10 and <input type="text"/>		23	20 is 10 and <input type="text"/>	
9	14 is 10 and <input type="text"/>		24	2 more than 10 is <input type="text"/>	
10	16 is 10 and <input type="text"/>		25	10 more than 2 is <input type="text"/>	
11	17 is 10 and <input type="text"/>		26	10 is <input type="text"/> less than 12	
12	19 is 10 and <input type="text"/>		27	10 is <input type="text"/> less than 12	
13	18 is 10 and <input type="text"/>		28	8 less than 18 is <input type="text"/>	
14	12 is 10 and <input type="text"/>		29	6 less than 16 is <input type="text"/>	
15	13 is 10 and <input type="text"/>		30	10 less than 20 is <input type="text"/>	

B

Number Correct _____

1	9 and 1 make <input type="checkbox"/>		16	12 is 10 and <input type="checkbox"/>	
2	8 and 2 make <input type="checkbox"/>		17	12 is 2 and <input type="checkbox"/>	
3	6 and 4 make <input type="checkbox"/>		18	11 is 1 and <input type="checkbox"/>	
4	7 and <input type="checkbox"/> make 10		19	11 is <input type="checkbox"/> and 1	
5	3 and <input type="checkbox"/> make 10		20	15 is 10 and <input type="checkbox"/>	
6	7 and <input type="checkbox"/> make 10		21	14 is <input type="checkbox"/> and 4	
7	<input type="checkbox"/> and 5 make 10		22	19 is 10 and <input type="checkbox"/>	
8	14 is 10 and <input type="checkbox"/>		23	20 is 10 and <input type="checkbox"/>	
9	13 is 10 and <input type="checkbox"/>		24	1 more than 10 is <input type="checkbox"/>	
10	17 is 10 and <input type="checkbox"/>		25	10 more than 1 is <input type="checkbox"/>	
11	16 is 10 and <input type="checkbox"/>		26	10 is <input type="checkbox"/> less than 11	
12	15 is 10 and <input type="checkbox"/>		27	10 is <input type="checkbox"/> less than 11	
13	19 is 10 and <input type="checkbox"/>		28	7 less than 17 is <input type="checkbox"/>	
14	11 is 10 and <input type="checkbox"/>		29	9 less than 19 is <input type="checkbox"/>	
15	12 is 10 and <input type="checkbox"/>		30	10 less than 20 is <input type="checkbox"/>	

Name _____ Date _____

Study the addition chart to solve and write related problems.

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

Pick a subtraction flashcard.

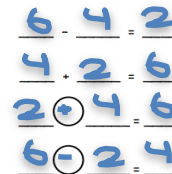
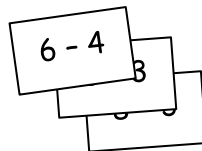
Find the related addition fact on the chart and shade it in.

Write the subtraction sentence and the shaded addition sentence.

Write the other two related facts.

Continue for at least 4 turns.

Directions: Choose an expression card and write 4 problems that use the same parts and totals. Shade the totals orange.



1. $\underline{\quad} - \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$

$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$

2. $\underline{\quad} - \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$

$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$

3. $\underline{\quad} - \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$

$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$

4. $\underline{\quad} - \underline{\quad} = \underline{\quad}$

$\underline{\quad} + \underline{\quad} = \underline{\quad}$

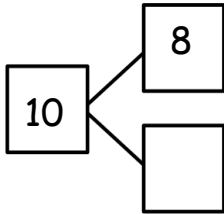
$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$

$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$

Name _____ Date _____

Write the related number sentences for the number bonds.

1.



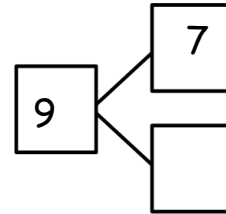
$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$$

2.



$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

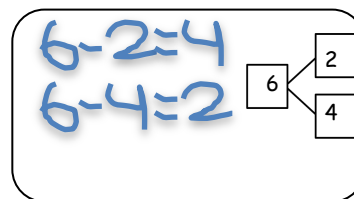
$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

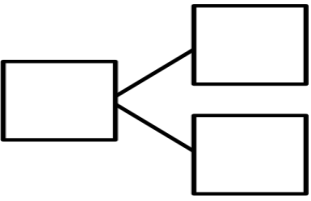
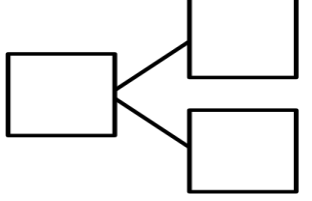
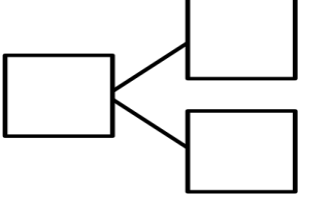
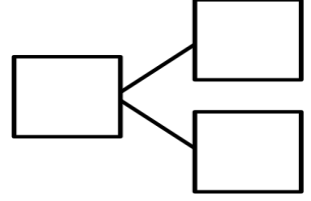
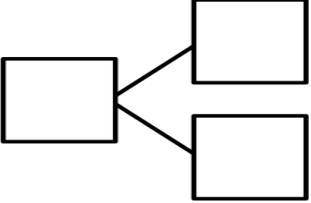
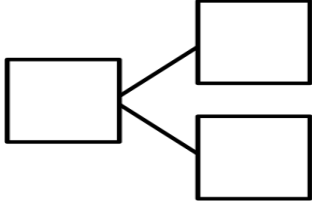
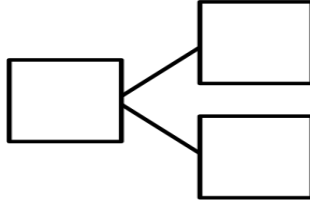
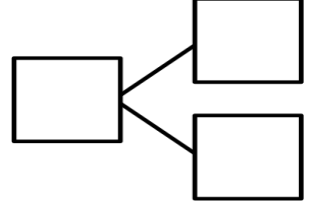
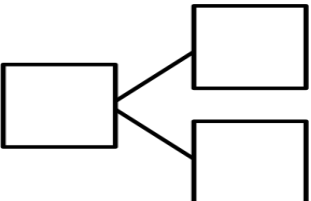
$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \bigcirc \underline{\quad} = \underline{\quad}$$

Date _____

Make a number bond card. Use your cards to play memory.

[illegible]

Name _____

Date _____

1. There were 5 boys at Jake's party. Some more came after basketball practice. Then there were 9.
 - a. Draw a picture to help you solve the problem.

- b. Draw a complete number bond that goes with this story.

- c. Write an addition sentence to match this story.

2. Write the numbers that go in the blanks.

- Color all of the partners to 10 blue.
- Color all of the +1 facts yellow.
- Color all of the +2 facts red.

$3 + 7 = \underline{\quad}$

$\underline{\quad} = 1 + 4$

$3 + 2 = \underline{\quad}$

$\underline{\quad} = 7 + 2$

$5 + 1 = \underline{\quad}$

$\underline{\quad} = 8 + 1$

$9 + 1 = \underline{\quad}$

$\underline{\quad} = 2 + 6$

$6 + 4 = \underline{\quad}$

3. Look at the party picture!



- Write at least two different addition sentences using 3, 6, and 9 that describe the party picture.

- How are these number sentences the same? Explain using pictures and numbers.

4. Monica says when the unknown is 4, it makes this number sentence true:
 $5 + 3 = \underline{\quad} + 4$. Terry says she is wrong. He says 8 makes the number sentence true.
- a. Who is correct? Explain your thinking using pictures, words, or numbers.
- b. Monica says that 3 and 5 is equal to 5 and 3. Terry says she is wrong again. Explain who is correct, using pictures, numbers, or words.
- c. Next, Monica tells Terry $8 = 8$. Terry says she is wrong one more time. Explain who is correct, using pictures, numbers, or words.
- d. Terry decided to share 8 carrot sticks with his friend Monica. Monica put 5 carrot sticks on her plate and some more in her lunch box. How many carrot sticks did Monica put in her lunch box?

Mid-Module Assessment Task Standards Addressed

Topics A–F

Represent and solve problems involving addition and subtraction.

- 1.OA.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

- 1.OA.3** Apply properties of operations as strategies to add and subtract. *Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)*

Add and subtract within 20.

- 1.OA.5** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- 1.OA.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

Work with addition and subtraction equations.

- 1.OA.7** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.*
- 1.OA.8** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = \square - 3$, $6 + 6 = \square$.*

Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe steps that illuminate the gradually increasing understandings that students develop *on their way to proficiency*. In this chart, this progress is presented from left (Step 1) to right (Step 4). The learning goal for each student is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the student **CAN** do now, and what they need to work on next.

A Progression Toward Mastery

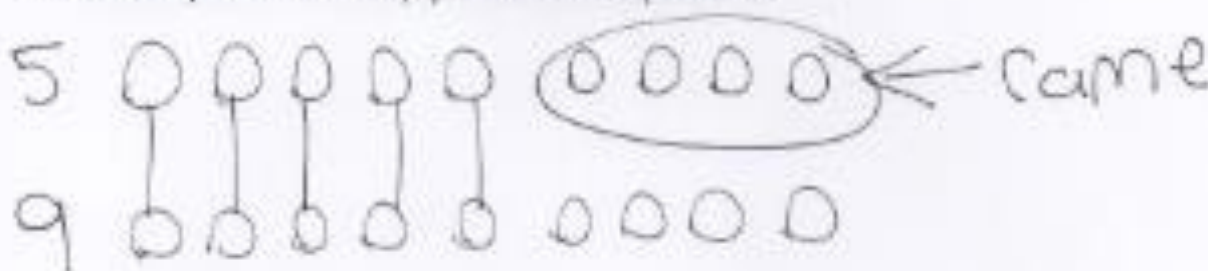
Assessment Task Item	STEP 1 Little evidence of reasoning without a correct answer. (1 Point)	STEP 2 Evidence of some reasoning without a correct answer. (2 Points)	STEP 3 Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer. (3 Points)	STEP 4 Evidence of solid reasoning with a correct answer. (4 Points)
1 1.OA.1 1.OA.5 1.OA.8	The student is unable to represent the problem with pictures or is disorganized with the symbols, digits, and structure and writes an inaccurate number bond and number sentence.	The student draws an incorrect picture with an equation and number bond that may or may not match the incorrect picture.	<p>The student draws and solves the <i>add to with change unknown</i> problem correctly (4 more boys came to the party), but is unable to write an addition equation or number bond to match the problem.</p> <p>Or, the student writes an equation and number bond (using 9, 5, and 4), but cannot explain their thinking using pictures to solve the <i>add to with change unknown</i> problem.</p>	<p>The student correctly:</p> <ul style="list-style-type: none"> Draws a picture to solve the <i>add to with change unknown</i> problem and determines that 4 more boys came to the party. Makes a number bond with 9, 5, and 4. Writes an addition equation ($9 = 5 + \underline{\quad}$, $5 + \underline{\quad} = 9$, etc.).
2 1.OA.6	The student is unable to add as evidenced by unanswered problems. The student colors boxes at random with little understanding of partners to 10, +1, and +2.	<p>The student makes several calculation or category coloring errors.</p> <p>The student makes no accommodation for $9 + 1$.</p>	<p>The student answers most addition problems correctly, and makes some category coloring errors (up to 2 calculation or color errors combined.)</p> <p>The student makes no accommodation for $9 + 1$, or makes an accommodation for $9 + 1$ with calculation or category coloring errors.</p>	<p>The student correctly:</p> <ul style="list-style-type: none"> Answers all addition problems. Colors all equations in accordance to the problem type categories. Makes an accommodation for $9 + 1$ as it fits two categories.



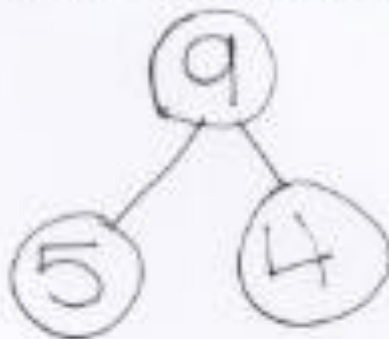
<p>3</p> <p>1.OA.3 1.OA.6</p>	<p>The student writes two incorrect number sentences.</p> <p>Or, the student is disorganized with the symbols, digits, and structure, and writes an inaccurate equation.</p>	<p>The student writes one correct number sentence, and thus cannot explain the similarities between two equations.</p> <p>Or, the student writes two number sentences that are exactly the same as one another, and explains her thinking that does not reflect an understanding of the commutative property.</p>	<p>The student writes two correct and unique addition equations using 3, 6, and 9, but is unable to cite the commutative property in her own words to explain how the equations are same.</p>	<p>The student clearly:</p> <ul style="list-style-type: none"> Writes two correct and unique addition equations that use 3, 6, and 9 ($9 = 6 + 3$, or $3 + 6 = 9$, or $9 = 3 + 6$, etc.). Demonstrates with pictures, numbers, and words how the number sentences are the same, somehow citing the commutative property in her own words.
<p>4</p> <p>1.OA.1 1.OA.3 1.OA.5 1.OA.6 1.OA.7 1.OA.8</p>	<p>The student cannot explain any of the three scenarios clearly using equations, pictures, or words.</p> <p>The student cannot solve the <i>take apart with addend unknown</i> problem correctly.</p>	<p>The student explains one of the three scenarios clearly and thoroughly using equations, pictures, or words. The student solves the <i>take apart with addend unknown</i> problem incorrectly (something other than 3 carrots were in her lunch box).</p>	<p>The student explains two of the three scenarios clearly and thoroughly using equations, pictures, and/or words.</p> <p>The student solves the <i>take apart with addend unknown</i> problem correctly and determines that 3 carrots were in her lunch box.</p>	<p>The student clearly and thoroughly:</p> <ul style="list-style-type: none"> Explains all three scenarios using equations, pictures, and/or words. Solves the <i>take apart with addend unknown</i> problem correctly and determines that 3 carrots were in her lunch box.

1. There were 5 boys at Jake's party. Some more came after basketball practice. Then there were 9.

a. Draw a picture to help you solve the problem.



b. Draw a complete number bond that goes with this story.



c. Write an addition sentence to match this story.

$$5 + 4 = 9$$

2. Write the numbers that go in the blanks.

a. Color all of the partners to 10 blue.

b. Color all of the +1 facts yellow.

c. Color all of the +2 facts red.

$$3 + 7 = \underline{10}$$

$$\underline{5} = 1 + 4$$

$$3 + 2 = \underline{5}$$

$$\underline{9} = 7 + 2$$

$$5 + 1 = \underline{6}$$

$$\underline{9} = 8 + 1$$

$$9 + 1 = \underline{10}$$

$$\underline{8} = 2 + 6$$

$$6 + 4 = \underline{10}$$

3. Look at the party picture!



a. Write at least two different addition sentences using 3, 6, and 9 that describe the party picture.

$$\underline{3 + 6 = 9}$$

$$\underline{6 + 3 = 9}$$

b. How are these number sentences the same? Explain using pictures and numbers.

$$\begin{array}{r} 3 \text{ balloons} + 6 \text{ hats} = 9 \\ 6 \text{ hats} + 3 \text{ balloons} = 9 \end{array}$$

4. Monica says when the unknown is 4, it makes this number sentence true:
 $5 + 3 = \underline{\quad} + 4$. Terry says she is wrong. He says 8 makes the number sentence true.

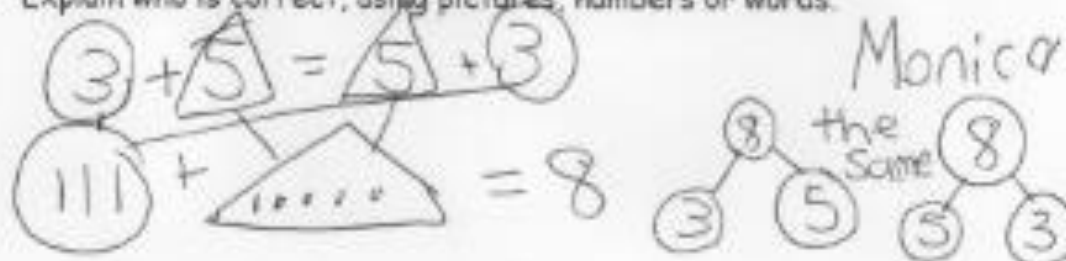
- a. Who is correct? Explain your thinking using pictures, words, or numbers.

Monica



They are the same so shes rite.

- b. Monica says that 3 and 5 is equal to 5 and 3. Terry says she is wrong again. Explain who is correct, using pictures, numbers or words.



Monica

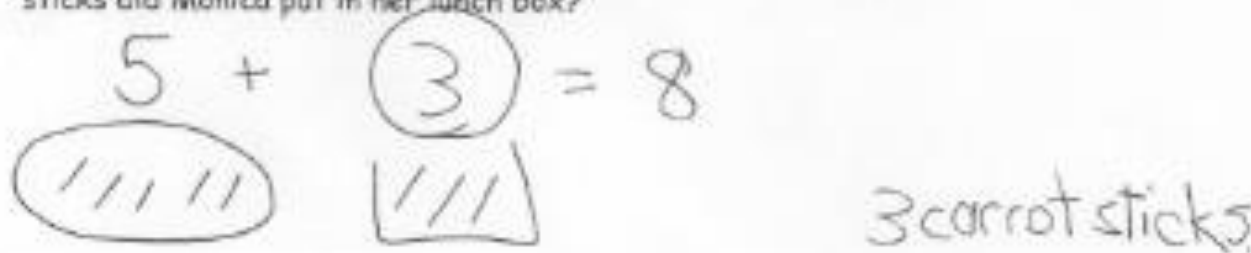
the same

- c. Next, Monica tells Terry $8 = 8$. Terry says she is wrong one more time. Explain who is correct, using pictures, numbers, or words.



Its true!

- d. Terry decided to share 8 carrot sticks with his friend Monica. Monica put 5 carrot sticks on her plate and some more in her lunch box. How many carrot sticks did Monica put in her lunch box?



3 carrot sticks

Name _____

Date _____

1. There are 9 ducks swimming along in a line. There are 2 grown-up ducks, and the rest are babies. How many of the ducks are babies?
- a. Explain your thinking using pictures, numbers or words.

- b. Write a number sentence that shows how you solved the problem.

2. Jennifer says you can use addition to solve subtraction.
She says to solve $9 - 6 = \square$, just add $9 + 6$.
Explain how Jennifer is right **and** wrong using words, pictures, and numbers.

3. Jeremy is confused about this problem: $\underline{\hspace{1cm}} = 10 - 8$. Be his teacher. Write one or more addition number sentences that might help him understand and solve it. Explain to Jeremy using words, pictures, or numbers, too.

4. At the park, there are 6 friends playing baseball. Some more friends come. Now there are 10 friends playing.

- a. How many friends come to play with the first 6 friends? Explain your thinking using a math drawing, numbers, and words.

- b. Write an addition sentence and a subtraction sentence to match the story.

- c. Write the addition sentence you found when solving the problem, and use the same 3 numbers to write 3 more number sentences:

End-of-Module Assessment Task Standards Addressed

Topics A–J

Represent and solve problems involving addition and subtraction.

- 1.OA.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

- 1.OA.3** Apply properties of operations as strategies to add and subtract. *Example: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)*
- 1.OA.4** Understand subtraction as an unknown-addend problem. *For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.*

Add and subtract within 20.

- 1.OA.5** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
- 1.OA.6** Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

Work with addition and subtraction equations.

- 1.OA.7** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.*
- 1.OA.8** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = \square - 3$, $6 + 6 = \square$.*

Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe steps that illuminate the gradually increasing understandings that students develop *on their way to proficiency*. In this chart, this progress is presented from left (Step 1) to right (Step 4). The learning goal for each student is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what the student can do now, and what they need to work on next.

A Progression Toward Mastery

Assessment Task Item	STEP 1 Little evidence of reasoning without a correct answer. (1 Point)	STEP 2 Evidence of some reasoning without a correct answer. (2 Points)	STEP 3 Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer. (3 Points)	STEP 4 Evidence of solid reasoning with a correct answer. (4 Points)
1 1.OA.1 1.OA.4 1.OA.6 1.OA.8	The student demonstrates a limited ability to both explain his thinking and answer accurately.	The student demonstrates a beginning concept of how to solve an <i>addend unknown</i> relationship problem using pictures, words, or numbers by attempting to show her thinking, but provides an inaccurate answer.	The student correctly solves the <i>addend unknown</i> relationship problem and writes a corresponding equation, but cannot explain his thinking in pictures, words, or numbers. Or, the student explains her thinking using pictures, words, or numbers, but is unable to write an accurate equation.	The student correctly: <ul style="list-style-type: none"> Solves the <i>addend unknown</i> relationship problem and determines that 7 ducks are babies. Explains thinking by drawing a picture, writing numbers or equations, or words. Writes an equation that corresponds with her solution process (addition or subtraction).
2 1.OA.4 1.OA.5 1.OA.7 1.OA.8	The student shows little evidence of understanding how addition and subtraction differ, or is unable to complete the task.	The student shows evidence of beginning to understand how addition and subtraction differ through his explanation, but demonstrates incomplete reasoning and/or an incorrect answer.	The student identifies that Jennifer is incorrect, but cannot fully support the claim or explain his thinking clearly.	The student correctly identifies that Jennifer is correct that addition can be used to solve a subtraction problem, and that she is incorrect in adding 9 and 6 to solve $9 - 6$. The student shows her thinking using words, pictures, or numbers.



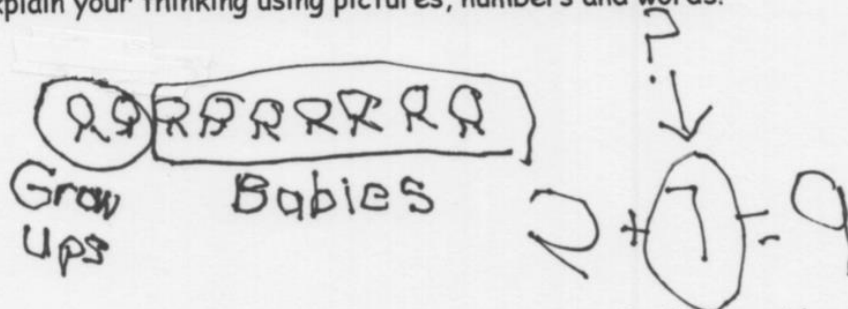
A Progression Toward Mastery

3 1.OA.5 1.OA.4 1.OA.7 1.OA.8	<p>The student demonstrates little to no concept of the connection between addition and subtraction, and is unable to explain her thinking.</p>	<p>The student demonstrates a beginning understanding of the connection between addition and subtraction, but does not answer accurately.</p>	<p>The student correctly writes two accurate equations using 8, 2, and 10, but is unable to explain her thinking.</p> <p>Or, the student is able to explain her thinking, somehow citing the connection between addition and subtraction, but is unable to write two accurate equations.</p>	<p>The student correctly:</p> <ul style="list-style-type: none"> Writes two accurate addition equations using 8, 2, and 10. Explains her thinking using pictures, numbers, or words, and cites the connection between addition and subtraction in her explanation.
4 1.OA.1 1.OA.3 1.OA.4 1.OA.6 1.OA.7 1.OA.8 1.OA.5	<p>The student shows very little understanding of how to solve the <i>add to with change unknown</i> problem, and cannot write corresponding equations.</p>	<p>The student shows a beginning understanding of how to solve the <i>add to with change unknown</i> problem, but lacks reasoning or equation writing skills.</p>	<p>The student correctly answers the <i>add to with change unknown</i> problem (4 friends came to play), writes accurate addition and subtraction equations, including those that demonstrate an understanding of the commutative property, but is unable to explain his thinking.</p> <p>Or, the student writes addition and subtraction equations correctly and clearly explains his thinking but does not answer accurately (something other than 4 friends came to play).</p> <p>Or, the student solves the problem (4 friends came to play) and explains thinking clearly but does not write all addition and subtraction sentences accurately.</p>	<p>The student clearly:</p> <ul style="list-style-type: none"> Solves the <i>add to with change unknown</i> problem and determines that 4 friends came to play, and explains his thinking. Writes addition and subtraction equations which correspond to the problem. Applies the commutative property and knowledge of the equal sign to write three additional equations ($10 = 6 + 4$; $4 + 6 = 10$; $10 - 4 = 6$; etc.).

Name Maria Date _____

- 1) There are 9 ducks swimming along in a line. There are 2 grown-up ducks, and the rest are babies. How many of the ducks are babies?

a) Explain your thinking using pictures, numbers and words!



b) Write a number sentence that shows how you solved the problem.

$$2 + 7 = 9 \quad 2 + \square = 9$$

- 2) Jennifer says you can use addition to solve subtraction.

She says to solve $9 - 6 = \square$, just add $9 + 6$.

Explain how Jennifer is right and wrong using words, pictures and numbers.

$$3 + _ = 5$$

$$5 - 3 = 2$$

rite

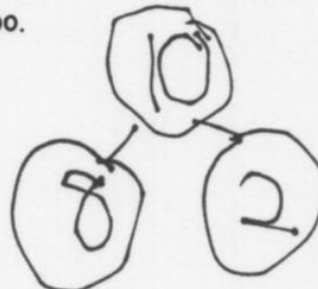
~~$$3 + 5$$~~

$$3 + 8 \text{ is not } 5$$

wrong

- 3) Jeremy is confused about this problem: $\underline{\quad} = 10 - 8$.

Be his teacher. Write one or more addition number sentences or number bonds that might help him understand and solve it. Explain to Jeremy using words, pictures or numbers, too.



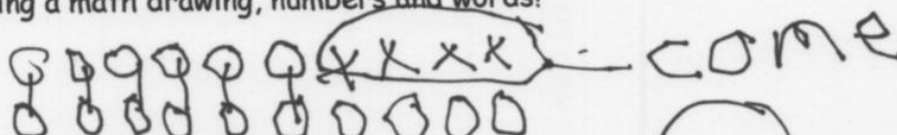
$$10 - 8 = \underline{\quad}$$

is the same

$$8 + \square = 10$$

- 4) At the park, there are 6 friends playing baseball. Some more friends come. Now there are 10 friends playing.

- a) How many friends come to play with the first 6 friends? Explain your thinking using a math drawing, numbers and words!



$$6 + 4 = 10$$

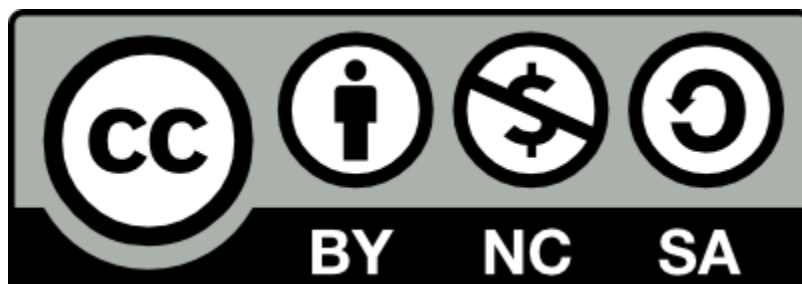
- b) Write an addition sentence and a subtraction sentence to match the story.

$$6 + 4 = 10 \quad 10 - 6 = 4$$

- c) Write the addition sentence you found when solving the problem, and use the same 3 numbers to write 3 more number sentences:

$$6 + 4 = 10 \quad 10 = 6 + 4$$

$$4 + 6 = 10 \quad 10 = 4 + 6$$



This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/>.



© 2012 Common Core, Inc. All rights reserved. commoncore.org



Learning Resources CoSer 501 Educational Media

Equal Opportunity Notice

CA BOCES hereby advises students, parents, employees and the general public that it offers employment, programs and educational opportunities, including vocational education opportunities, without regard to gender, race, color, national origin, handicap or any other legally protected status. Inquiries regarding this nondiscrimination policy and grievance procedures may be directed to: Human Resources Director, Cattaraugus-Allegany BOCES, 1825 Windfall Road, Olean, NY 14760; 716-376-8237.