

On the Playground



Beginning Questions ?

(You and the students point and count together.)

- What do you see in this picture?
(children, grown ups, dog, birds, swings, monkey bars)
- What are the children doing?
(playing, swinging, hanging, throwing, waiting)
- Let's count the number of children on the swings, pointing as we count. (1, 2, 3, 4)
- Let's count the number of children at the monkey bars. (1, 2, 3, 4, 5)
- Point to the child who is finished crossing the monkey bars.
- Point to the child who is first in line to go on the monkey bars, second in line, and last.

Intermediate Questions ??

(Students will need to point and touch while counting.)

- How many grown-ups are at the playground? (1, 2)
- How many children are at the playground? (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13)
- How many children are on the swings? (1, 2, 3, 4)

Advanced Questions ???

- How many children are on the monkey bars? (2)
- How many are waiting for a turn on the monkey bars? (3)
- Altogether how many children are at the monkey bars? (5)

Advanced Questions ???

- How many apples are on each tree? (5)
- How many apples are on all of the trees together? Let's count by fives. (5, 10, 15, 20, 25; five groups of 5 is 25)
- How many trees have two children next to them? (3)
- How many trees have one child next to them? (2)
- How many trees have no child next to them? (0)
- The little girl on the step stool just picked an apple. How many apples were on the tree before she picked that apple? (6: $5 + 1 = 6$)
- How many children are standing? (7)
- How many children are not standing? (2)
- How many children are there altogether? (9: $7 + 2 = 9$)
- Tell me a number story about this picture.

Challenging Questions ????

- If three more of the children sit down for a rest, how many will be standing? (4)
- How many will now be sitting? (5)
- How many groups of five apples do you see? (9)
- How many total apples are there in those nine groups? (45; encourage students to count by fives and explain that they are not to count the stray apples)
- If five more children come to the apple orchard with one more grown-up, how many children will there be? (14: $9 + 5 = 14$)
- How many grown-ups will there be? (4: $3 + 1 = 4$)
- If three children leave, how many children will be left picking apples? (6: $9 - 3 = 6$)
- Can you make up your own math story about this illustration?

On the Playground



My Word Problem Story Mat In the Ocean



My Quick Draw

Subtracting with Word Problems Part 1

Applying Math in the Real World with a Concrete-Pictorial-Abstract Approach

Using the Word Problem Story Mats:

Select a story mat. Determine which operation will be your focus and choose a word problem from the samples provided or create your own. Sample problems for each story mat are organized into categories:

- 1-3: Part/Whole Addition Problems
- 4-5 Subtraction Problems
- 6-7 Missing Addend Problems
- 8-10 Challenge Problems (deeper thinking)

Read the problem three times out loud to your student before they begin to solve it.

- ✓ Encourage students to repeat each part of the problem after you have read it.
- ✓ Personalize the problem by adding in familiar names (teachers, friends, etc.).
- ✓ Adjust the quantity of numbers in the problem based on the student's ability.

Applying CPA

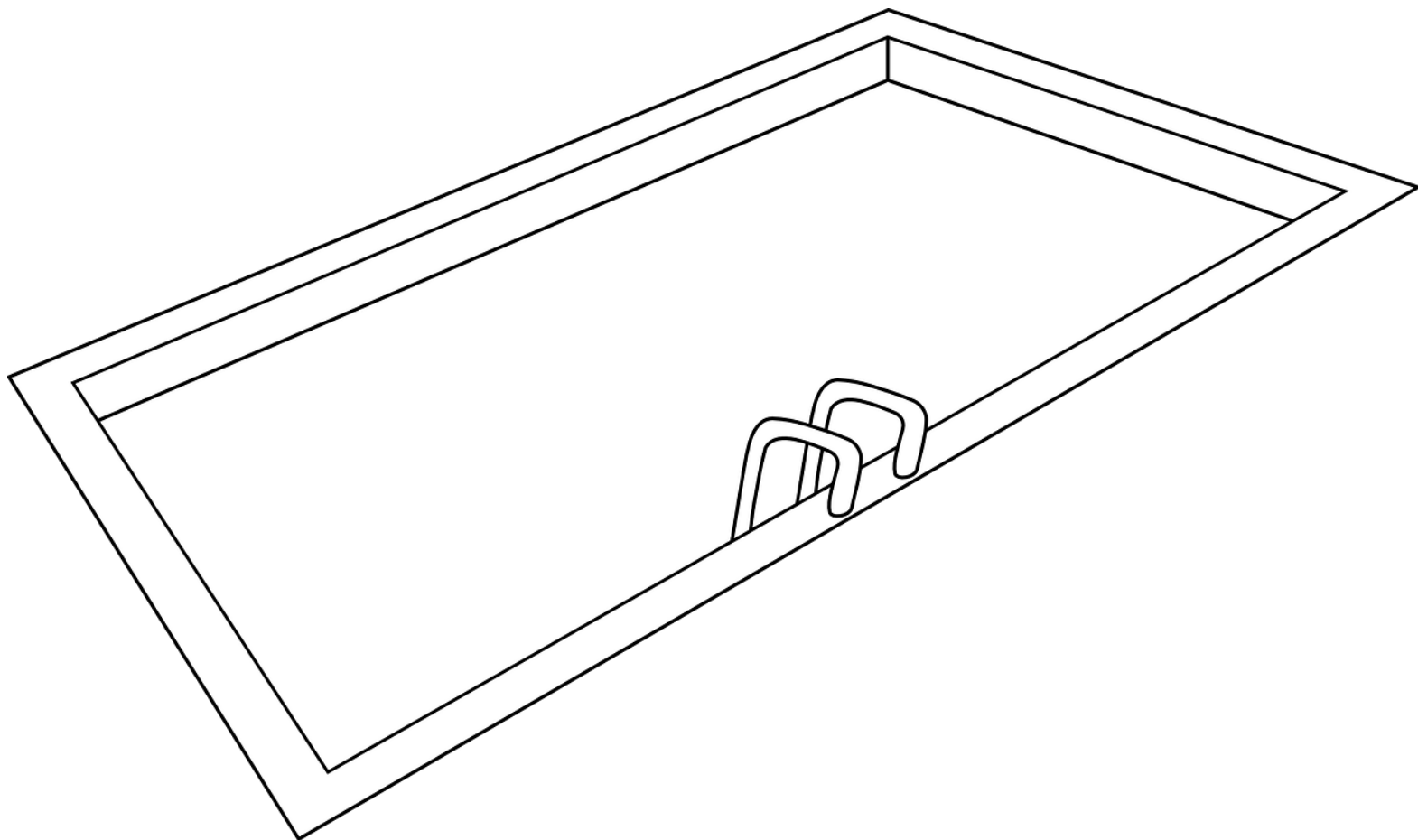
- As you read the problem aloud, let students use manipulatives (unifix cubes, beans, beads, counters, etc.) to represent the word problem **concretely**. Allow your student to explore the problem and act it out using the manipulative without leading prompts, correction or intervention.
- When students are comfortable with the problem, encourage your student to draw a **pictorial** representation using a Quick Draw, which uses simple shapes ("x", circles, tallies, etc.) without much detail to represent the quantities they used while acting out the problem with manipulatives.
- Finally, students can write a number sentence or number bond to demonstrate their **abstract** understanding of the problem.

Watch the video tutorials to see examples
and get more tips and ideas:

sis4teachers.org/early-word-problems/



My Word Problem Story Mat In the Pool

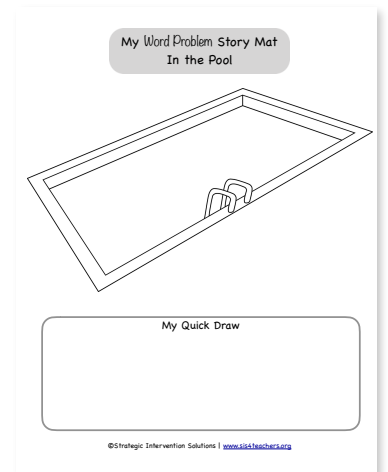


My Quick Draw

In the Pool Word Problems

Sample Word Problems:

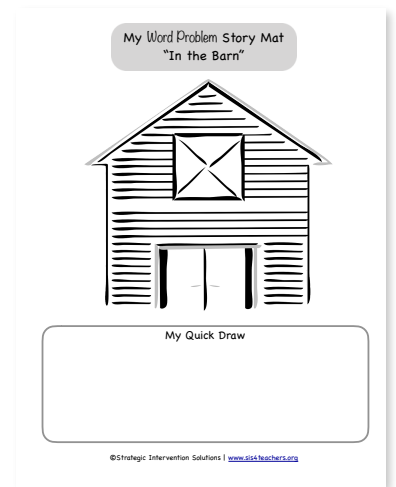
1. There were 5 boys and 4 girls **in the pool**. How many kids were in the pool?
2. There were 4 red beach balls and 3 green beach balls **in the pool**. How many beach balls were in the pool in all?
3. One dog jumped **in the pool** and then 2 more dogs jumped in. How many dogs are in the pool?
4. There were 9 kids **in the pool**. 3 kids had to go home. How many kids are left in the pool?
5. When we got **in the pool** there 6 dry towels on the bench. Our friends used 3 of the towels to dry off. How many dry towels are left?
6. There are kids 7 kids **in the pool**. 4 of the kids have on a blue bathing suit and rest have on a red bathing suit. How many kids are wearing red bathing suits?
7. There were 5 rafts **in the pool**. 2 of the rafts had kids on it and the rest didn't. How many rafts didn't have kids on it?
8. The boy saw 3 people swimming **in the pool**. How many arms did he see?
9. There are 5 pairs of goggles by **the pool** but there are 8 kids needing goggles. How many kids will not get a pair of goggles?
10. Two dogs jumped **in the pool** with the boy. How many legs are in the pool?



In the Barn Word Problems

Sample Word Problems:

1. There were 2 cows **in the barn** and 3 cows out of the barn. How many cows are there in all?
2. We saw 3 sheep and 2 pigs **in the barn**. How many animals are in the barn?
3. There were 6 goats **in the barn**, 2 more goats joined. How many goats are in the barn now?
4. There were 8 crows on **the barn**. 6 of them flew away. How many crows are left on the barn?
5. The farmer had 9 barrels of hay **in the barn**. The horses ate 2 barrels of the hay. How many barrels of hay does he have left?
6. There are 8 horses **in the barn**. 5 of them are brown and the rest are black. How many black horses are in the barn?
7. We saw 6 mice **in the barn**. 3 of the mice scurried away. How many mice are still in the barn?
8. There were 2 piglets by **the barn**. How many legs were there in all?
9. We saw 3 chicken in **the barn**. How many chicken feet did we see?
10. We spotted 8 eggs **in the barn**. If there were 4 chickens and they each laid the same amount of eggs how many eggs did they each lay?



My Word Problem Story Mat

In the Barn



My Quick Draw

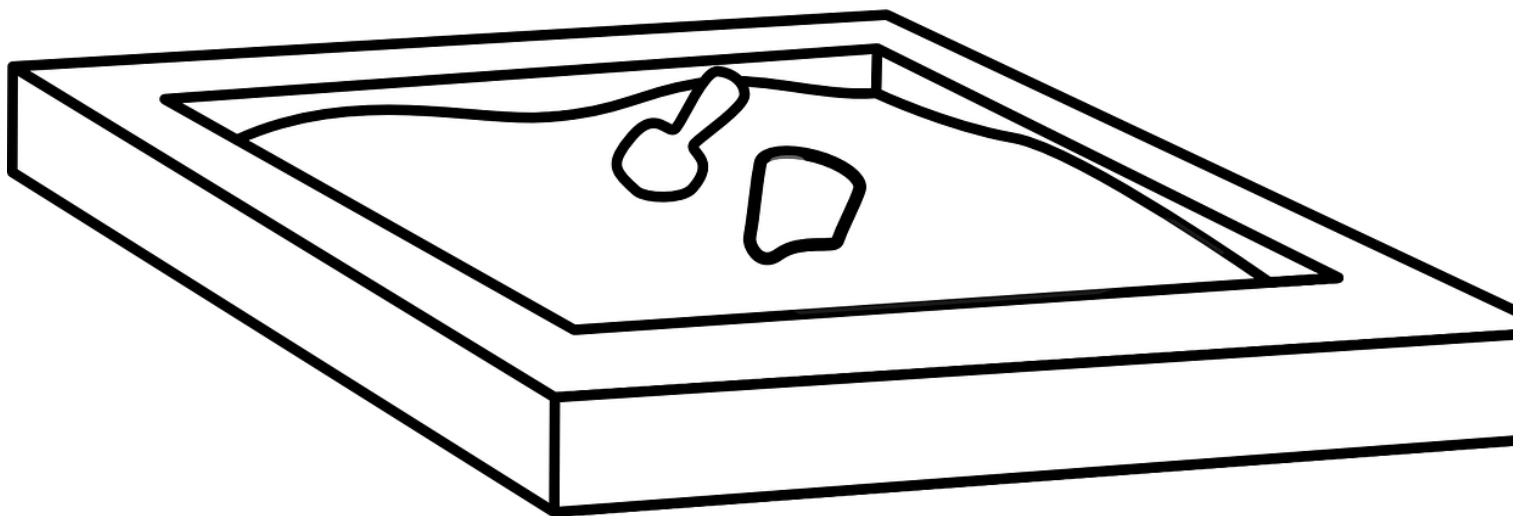
In the Sandbox Word Problems

Sample Word Problems:

1. We found 3 blue shovels and 4 yellow shovels **in the sandbox**. How many shovels did we find?
2. There are 2 pink buckets and 5 green buckets **in the sandbox**. How many buckets are there in all?
3. There were 6 ants crawling up **the sandbox**. 2 more ants came up from the grass into the sandbox. How many ants are there in the sandbox?
4. We saw 5 sandcastles **in the sandbox** in the morning. In the afternoon two of the sandcastles had fallen. How many sandcastles are left?
5. There were 8 kids playing **in the sandbox**. 3 of the kids had to leave. How many kids are left in the sandbox?
6. There were 7 kids **in the sandbox**. 4 of them were girls and the rest were boys. How many boys were in the sandbox?
7. The girl hid 8 pennies **in the sandbox**. She found 5. How many more pennies does she need to find?
8. There were 4 kids **in the sandbox**. How legs are there?
9. There were 3 kids **in the sandbox**. Each kid hid two treasures in the sandbox. How many treasures are hidden in all?
10. The boy has 2 play cars **in the sandbox**. Each car has 4 wheels. How many wheels are there?



My Word Problem Story Mat In the Sandbox



My Quick Draw

Trash Can Subtraction

Materials:

- 1 die
- 10 counters
- cards 7, 8, 9 and 10 (cut out cards below)

Directions:

1. Place the cards in a pile face down. Flip over the top card.
2. Build the number shown on the card on the ten frame.
3. Roll the die and take away the number shown on the die from the ten frame and put them in the trash can.
4. Fill in the recording sheet for steps 2-3.
5. Repeat steps 1-4

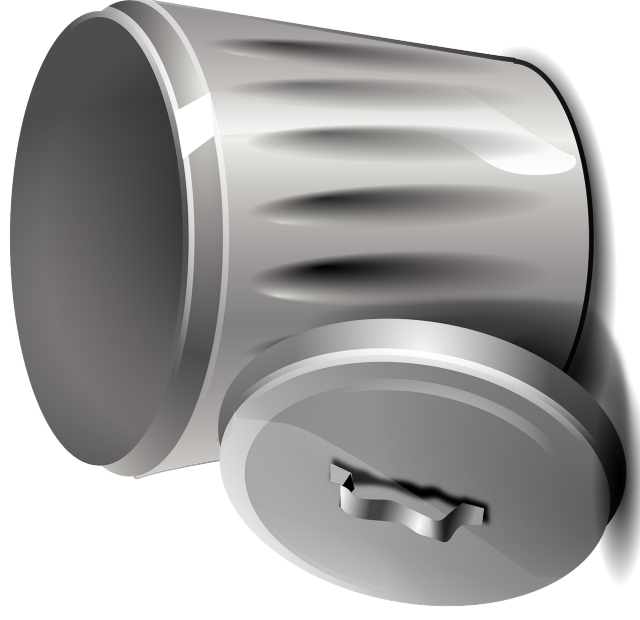
7

8

9

10

Trash Can Subtraction Mat



Name: _____

Trash Can Subtraction Recording Sheet

_____ - _____ = _____

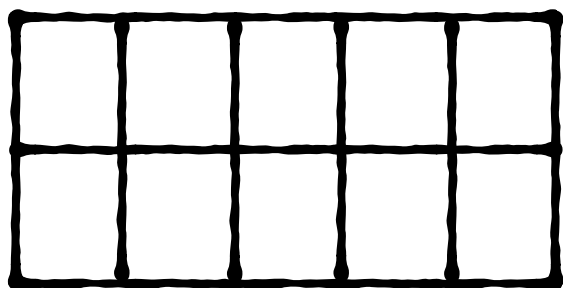
_____ - _____ = _____

_____ - _____ = _____

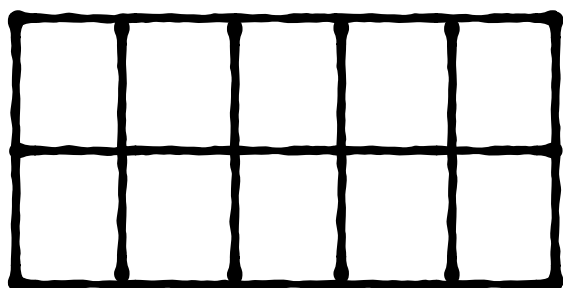
_____ - _____ = _____

Name: _____

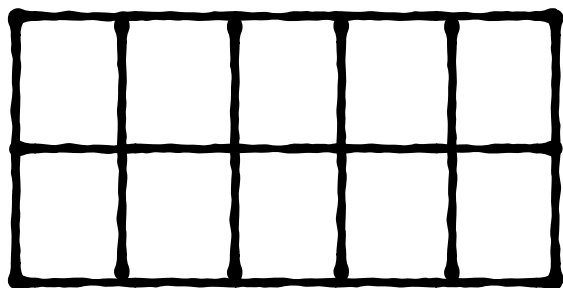
Trash Can Subtraction Recording Sheet



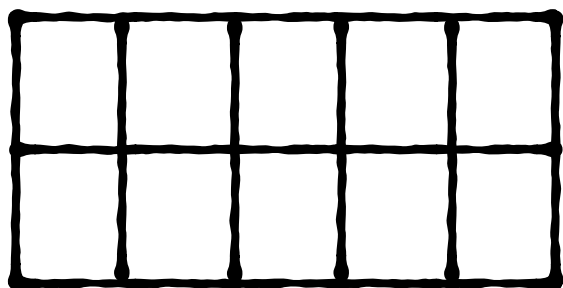
_____ - _____ = _____



_____ - _____ = _____



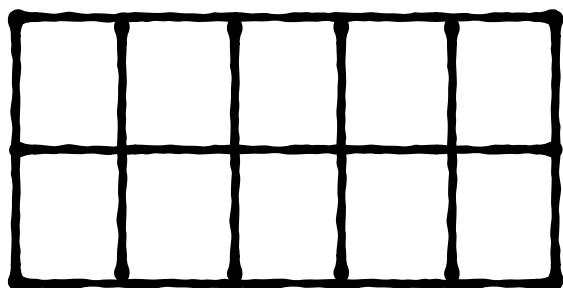
_____ - _____ = _____



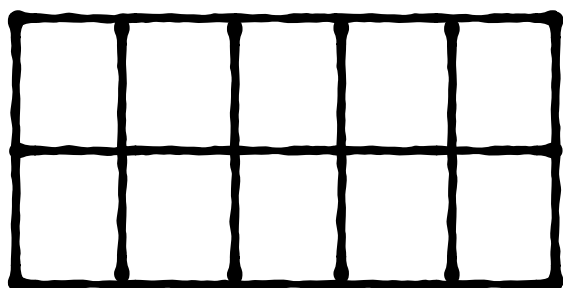
_____ - _____ = _____

Name: _____

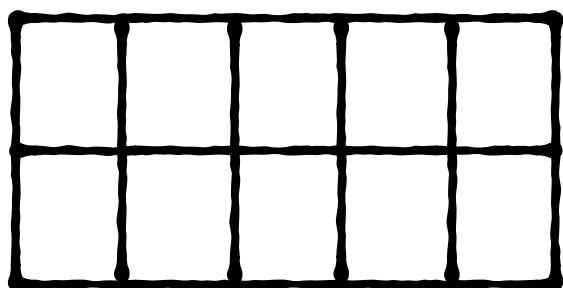
Trash Can Subtraction Recording Sheet



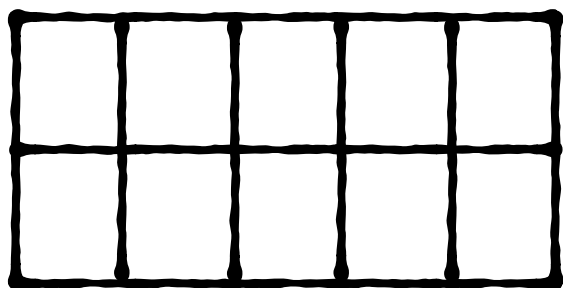
_____ - _____ = _____



_____ - _____ = _____



_____ - _____ = _____

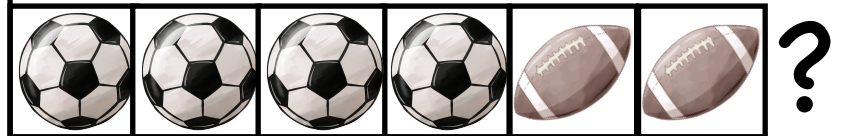


_____ - _____ = _____

4  and 2 

How many balls altogether?

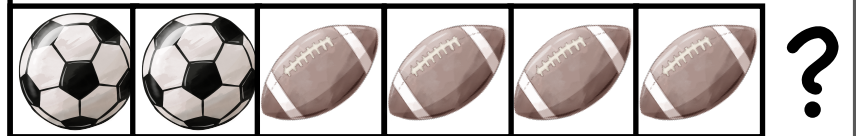
$$4 + 2 = 6$$



2  and 4 

How many balls in all?

$$2 + 4 = 6$$

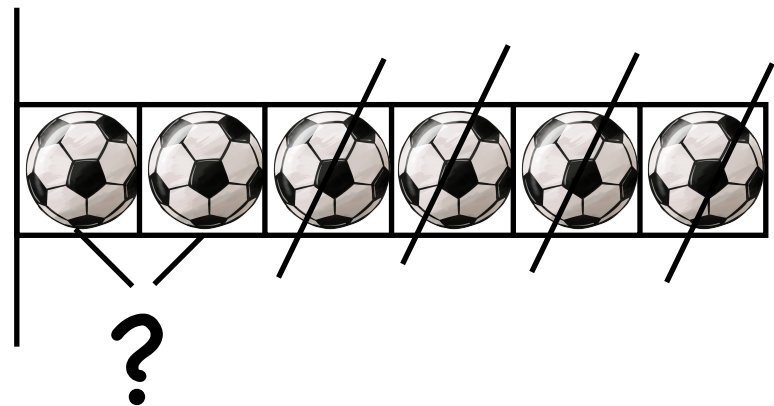


6



Four balls pop. How many are left?

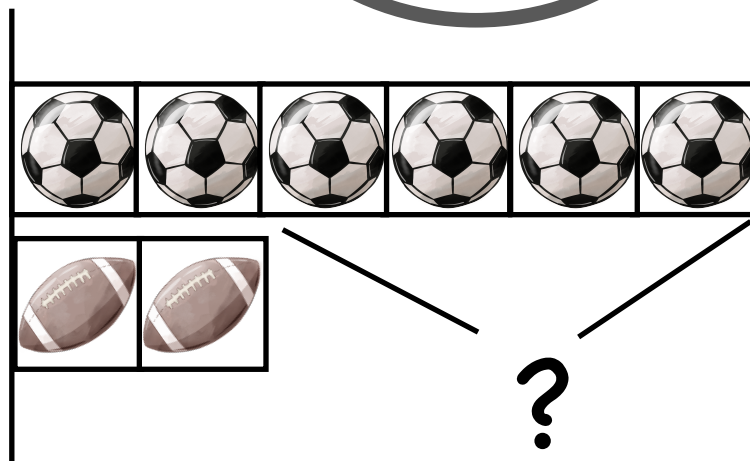
$$6 - 4 = 2$$



6  and 2 

How many more  than  ?

$$6 - 2 = 4$$



Match The Expression

Directions:

1. Read each story problem.
2. Figure out which expression represents the story problem.
3. Draw a line to the correct expression.

Charlie has 2 books in his backpack. Charlie puts 4 more books in his backpack. How many books are in Charlie's backpack now?

$3 + 3$

$6 + 2$

$2 + 4$

Sandy decorates 8 cupcakes. Her sister decorates 2 cupcakes. How many more cupcakes did Sandy decorate than her sister?

$8 - 2$

$6 - 2$

$8 + 2$

Logan has 5 stickers in his sticker book. He received 3 new stickers for his birthday. How many stickers does Logan now have all together?

$5 - 3$

$5 + 3$

$8 - 5$

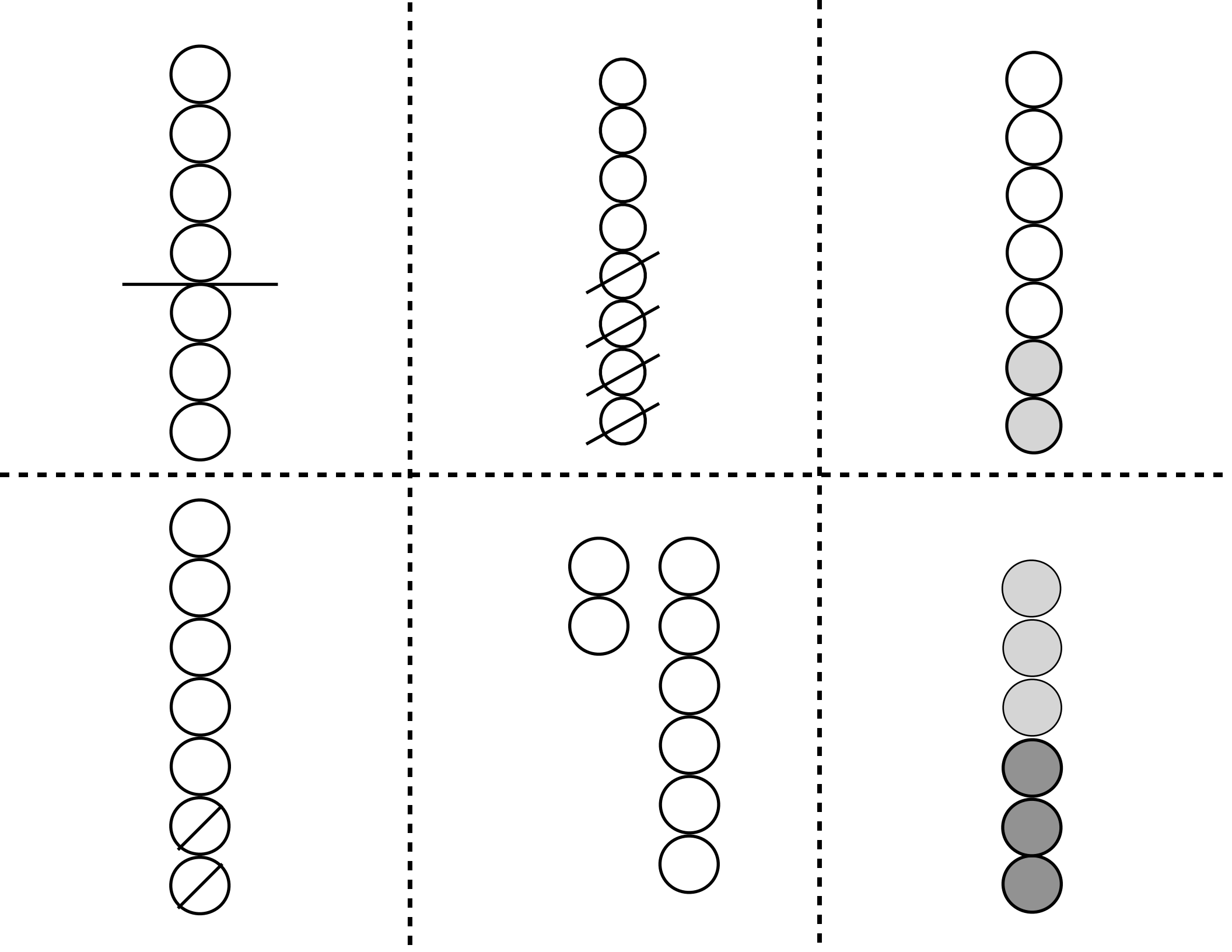
Match 'em Up!

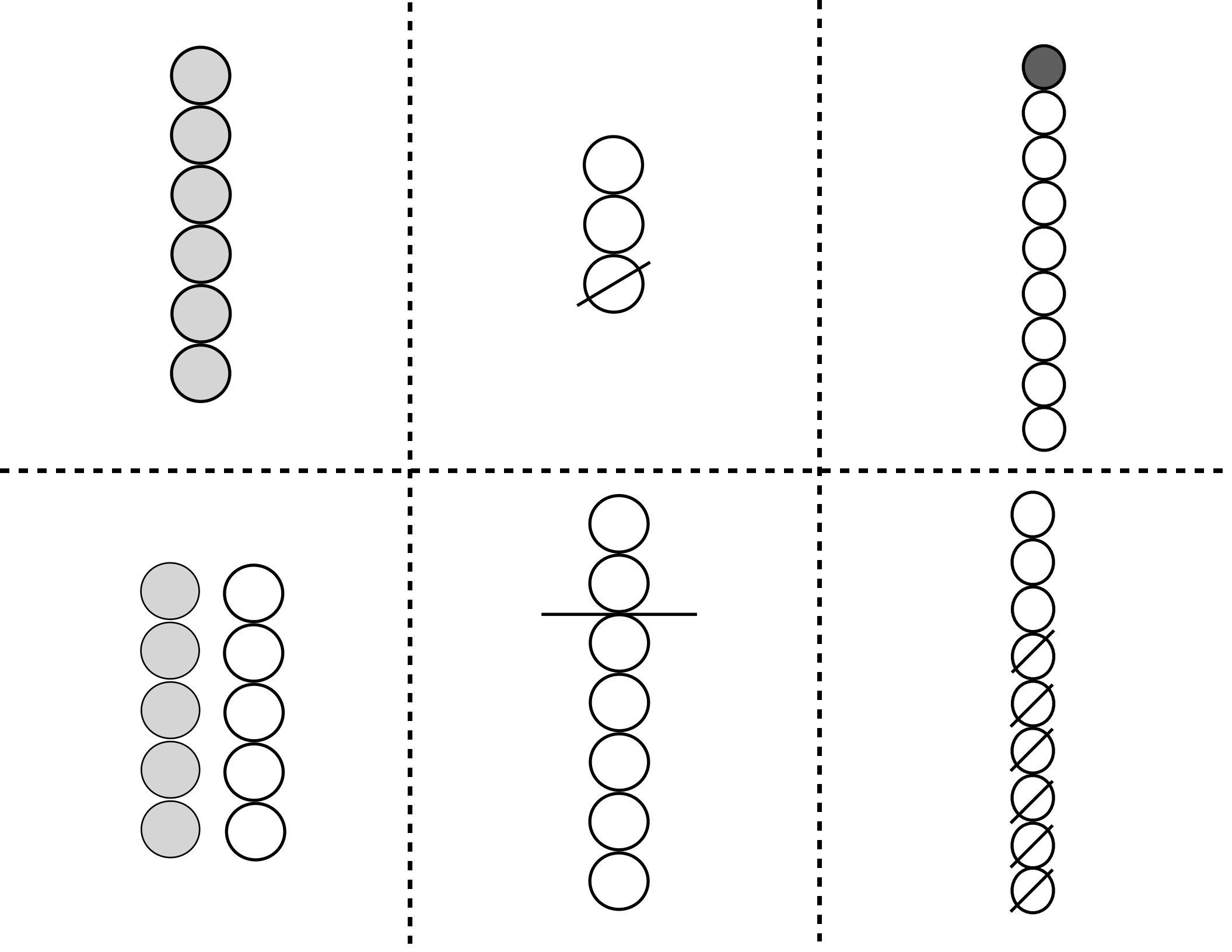
Materials:

- expression cards (cut out)
- drawing cards (cut out)

Directions:

1. Work with a partner. Place the drawing cards and the expression cards facedown in two separate piles.
2. Player 1: Turn over one drawing card and one expression card. If the two cards match keep them. If the cards do not match turn them facedown again.
3. Player 2: Complete steps 2-3.
4. Keep taking turns until all pairs of cards have been found.





$$5 + 2$$

$$7 + 2$$

$$8 - 4$$

$$3 + 3$$

$$4 + 3$$

$$7 - 2$$

$$1 + 8$$

$$9 - 6$$

$$3 - 1$$

$$2 + 5$$

$$6 - 0$$

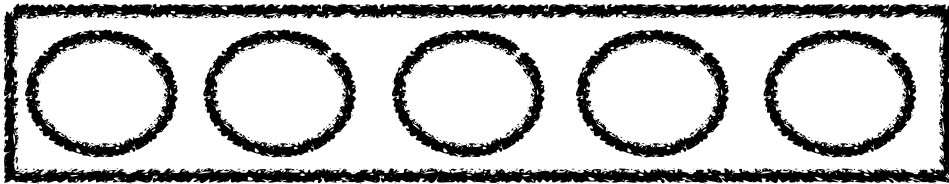
$$5 + 5$$



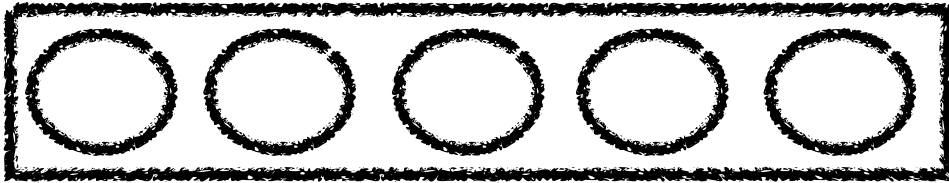
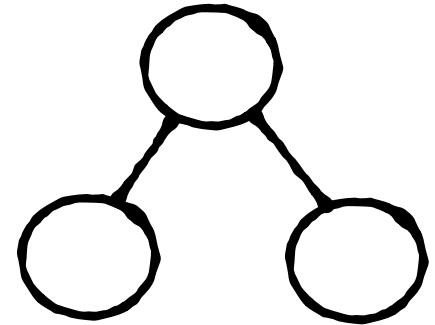
Name: _____

5 Frame Shake!

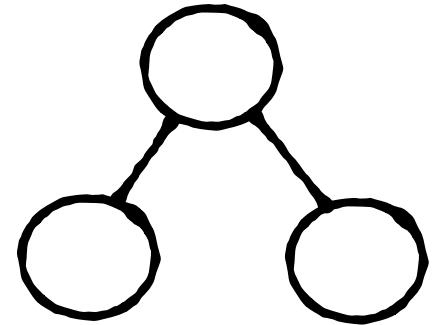
Shake a cup with 5 two-sided counters and dump it out. Record how many of each color you have and record it in the number sentence and number bond. Keep going until you have all 6 combinations for 5.



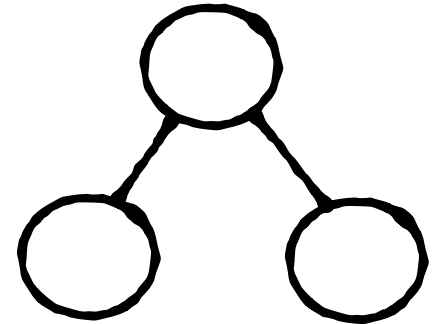
$$\underline{\quad\quad} + \underline{\quad\quad} = 5$$

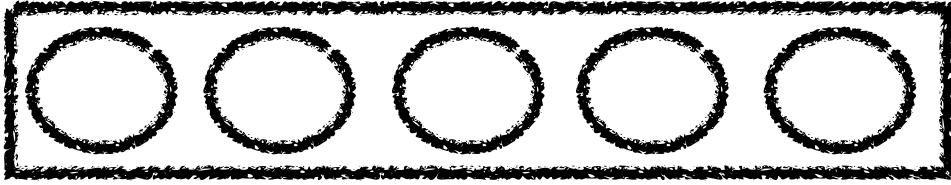


$$\underline{\quad\quad} + \underline{\quad\quad} = 5$$

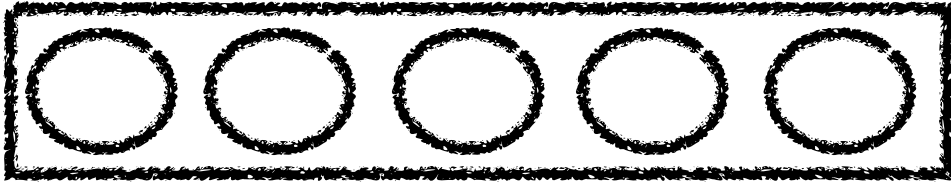
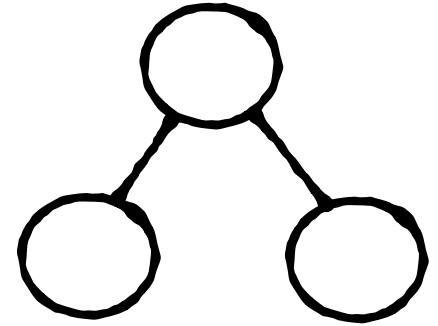


$$\underline{\quad\quad} + \underline{\quad\quad} = 5$$

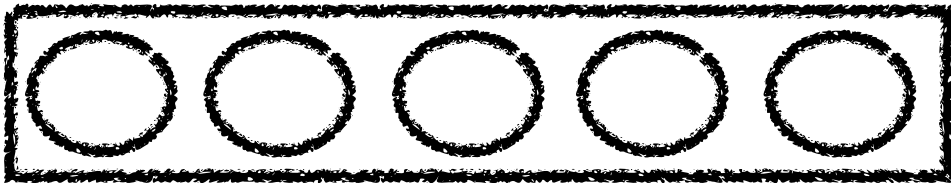
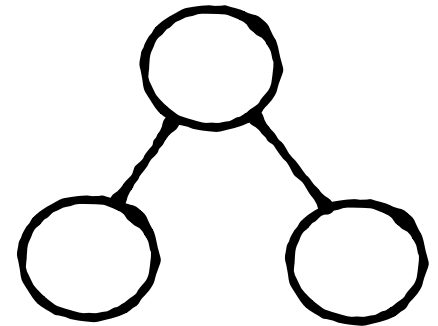




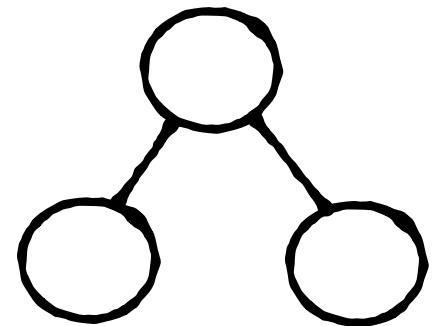
$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 5$$



$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 5$$



$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 5$$



My 5 Frame Mat

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Shake Those Discs

Materials: 2 cups, 9 counters that have 2 different sides (they can be 2-sided discs or even pennies)

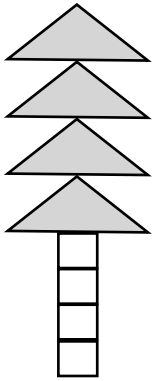
Directions:

1. Give each player a cup and 9 counters.
2. Put 9 counters into the cup and Shake Those Discs! Pour the discs out onto the table.
3. How many discs do you have of each color (or how many landed on heads and how many tails)? What expression can you write to represent the different parts?
4. Record your expression on the sheet below. Do this 4 more times.
5. Now repeat steps 2-4 but using 8 counters each.
6. Using 7 counters, repeat steps 2-4.

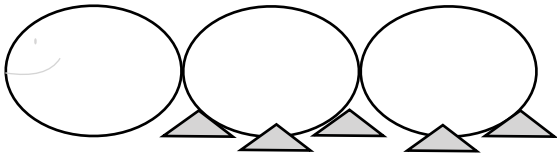
Player 1	
Shake	Expression
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

Player 2	
Shake	Expression
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

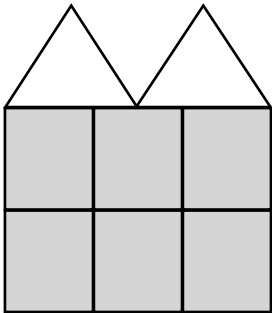
Matching Expressions



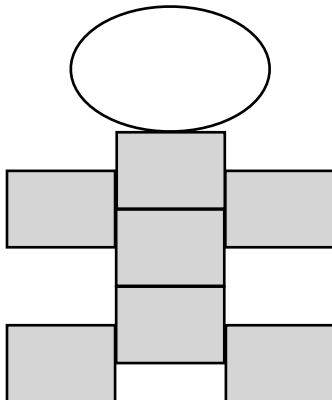
$$5 + 3$$



$$7 + 1$$



$$4 + 4$$



$$6 + 2$$

Snap The Cubes with D.C.

Directions:

1. Each tower has 7 cubes. Player 1 breaks down the tower into 2 parts and colors each part a different color.
2. Player 1 tells Player 2 what happened to the tower. (Ex: "I broke my tower into a group of 3 and a group of 4.")
3. Player 1 records the expression on the line below the tower.
4. Player 2 repeats steps 1-3 trying to break down the tower in a different way.
5. Continue until all towers have been broken down.



Player 1

Player 2

--	--	--	--	--	--	--

expression: _____

--	--	--	--	--	--	--

expression: _____

--	--	--	--	--	--	--

expression: _____

--	--	--	--	--	--	--

expression: _____

--	--	--	--	--	--	--

expression: _____

--	--	--	--	--	--	--

expression: _____

--	--	--	--	--	--	--

expression: _____

--	--	--	--	--	--	--

expression: _____

Make or Break Numbers


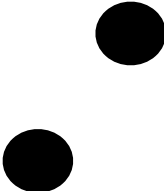
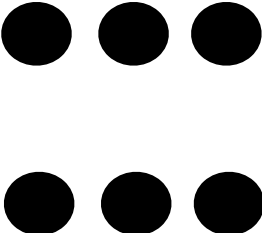



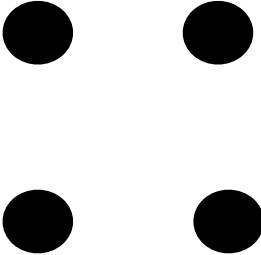
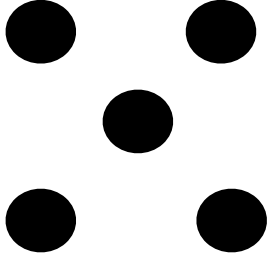
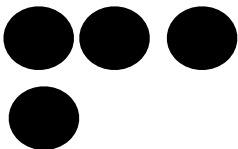

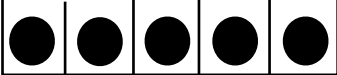


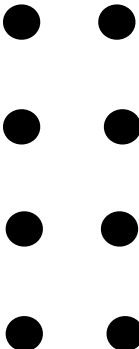
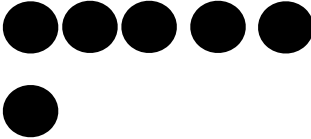

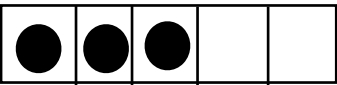


Materials: number cards (4-9) cut out

Directions:

1. Flip over the number cards and put them in a pile facedown. Turn over then top card.
2. Look on the Dots Page to find two groups of dots that can be put together to make the number that you rolled.
3. Write an expression below to represent the 2 parts that make the number.

1	example: $4 + 3 = 7$
2	
3	
4	
5	
6	
7	
8	
9	
10	

4

5

6

7

8

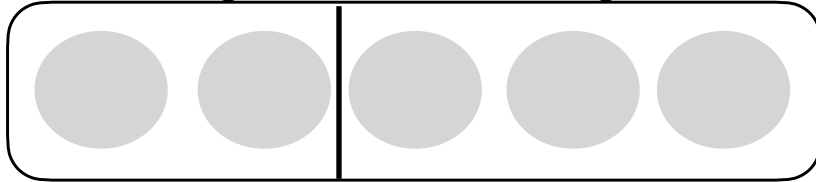
9

Match the Drawing

Directions: Draw a line to match the labeled drawing to the word problems.

hotdogs

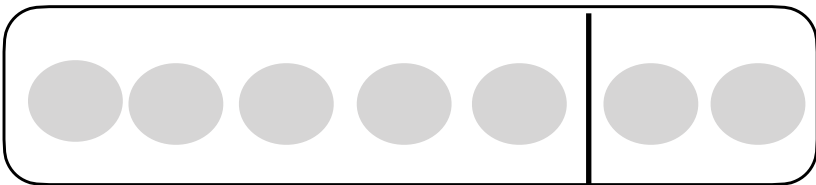
hamburgers



Karl has 5 toy trucks. For his birthday he got 2 toy cars. How many toys does Karl now have all together?

trucks

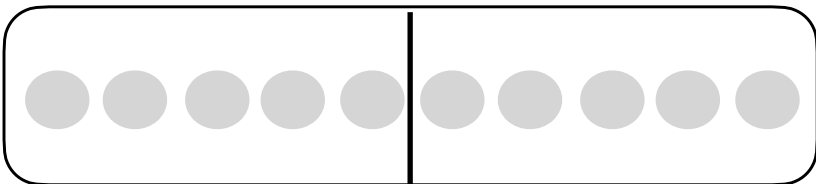
cars



Cindy made cupcakes for the school bake sale. She made 5 chocolate cupcakes and 5 vanilla cupcakes. How many cupcakes did Cindy make in all?

chocolate

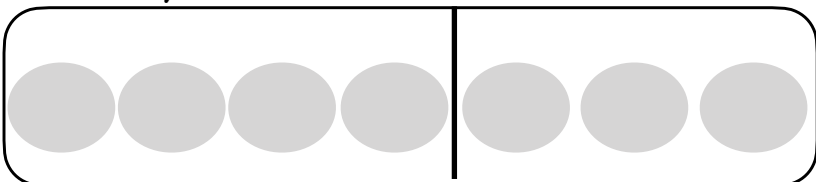
vanilla



Reagan made her friend a bracelet. She put 4 yellow beads and 3 blue beads on the bracelet. How many beads are on the bracelet?

yellow

blue



Jamal had some friends over for a barbecue. 2 friends ate hot dogs. 3 friends ate hamburgers. How many hot dogs and hamburgers were eaten altogether?

Find the Parts

Directions: Each problem gives you the total. You have to find as many different solutions to each problem. Fill in the parts to create the total.

Charlie has 8 toys in his toy box. Some of the toys are race cars and some of the toys are helicopters. How many race cars does Charlie have in his toy box? How many helicopters does he have in his toy box?



_____ helicopters + _____ race cars

_____ helicopters + _____ race cars

_____ helicopters + _____ race cars

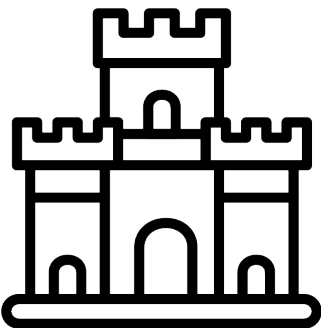
_____ helicopters + _____ race cars

_____ helicopters + _____ race cars

_____ helicopters + _____ race cars



Jessica built a castle with red and blue blocks. She used 7 blocks all together to build the castle. How many blocks are red? How many blocks are blue?



_____ red blocks + _____ blue blocks

_____ red blocks + _____ blue blocks

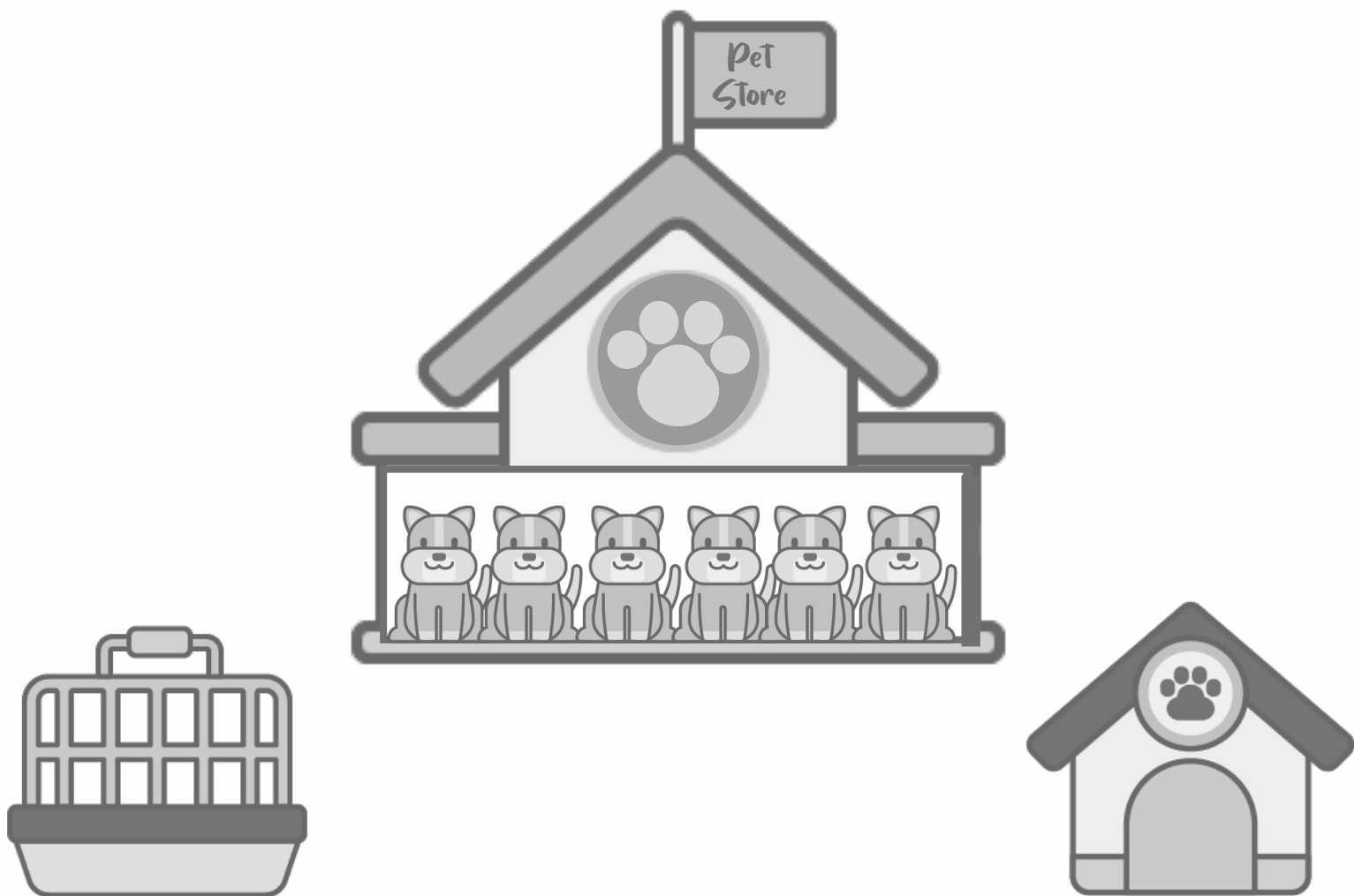
_____ red blocks + _____ blue blocks

_____ red blocks + _____ blue blocks

_____ red blocks + _____ blue blocks

_____ red blocks + _____ blue blocks

Directions: Using the pictures below tell a story. Use objects or drawings to show what happens in the story. Then tell a different story.



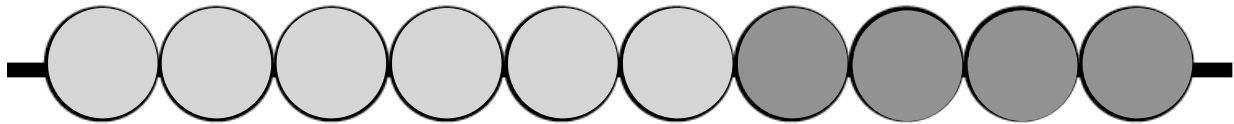
Write or draw your story.

Represent the Equation



Directions: Using two different colors fill in the Counting Buddy Senior to represent the equation.

Example: $10 = 6 + 4$



$10 = 5 + 5$



$10 = 7 + 3$



$10 = 1 + 9$



$10 = 8 + 2$





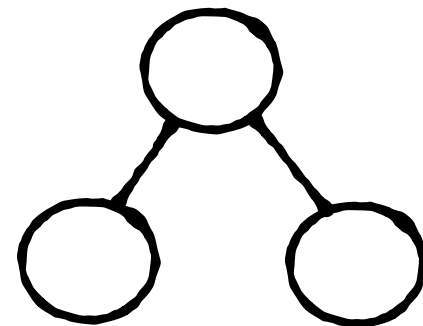
Name: _____

10 Frame Shake!

Shake a cup with 10 two-sided counters and dump it out. Record how many of each color you have and record it in the number sentence and number bond. Keep going until you have all 9 combinations for 10.

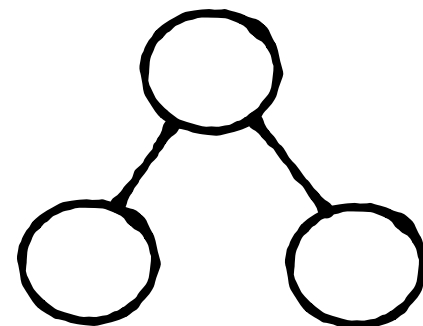
○	○	○	○	○
○	○	○	○	○

$$\underline{\quad\quad} + \underline{\quad\quad} = 10$$



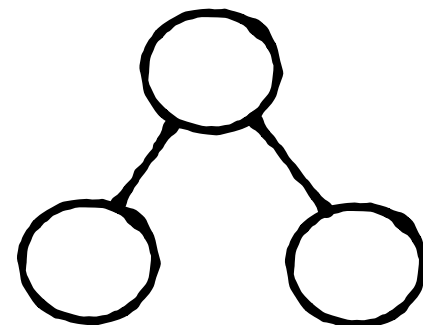
○	○	○	○	○
○	○	○	○	○

$$\underline{\quad\quad} + \underline{\quad\quad} = 10$$

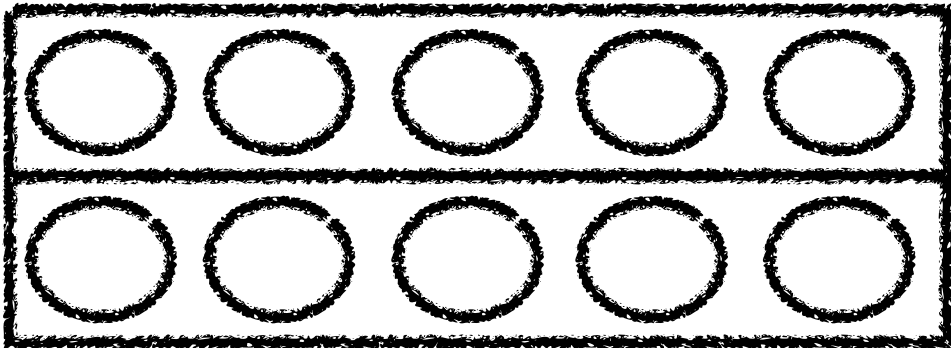


○	○	○	○	○
○	○	○	○	○

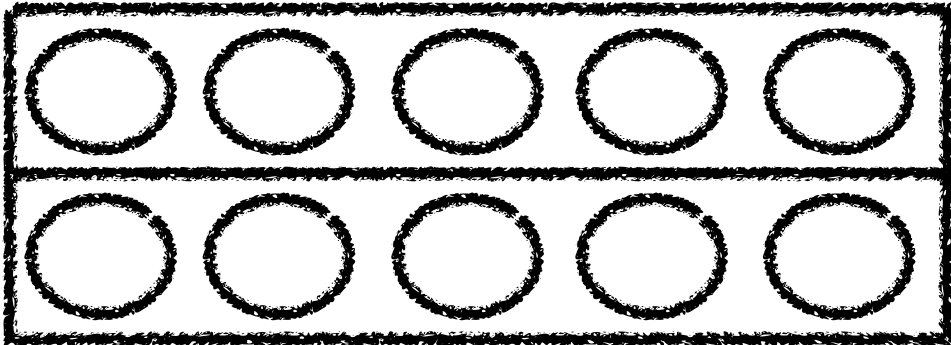
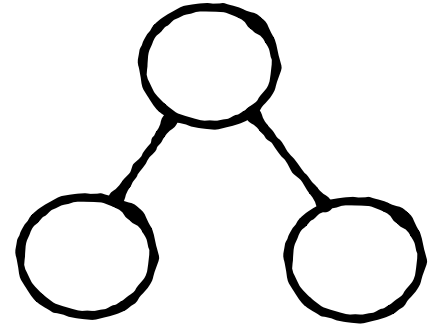
$$\underline{\quad\quad} + \underline{\quad\quad} = 10$$



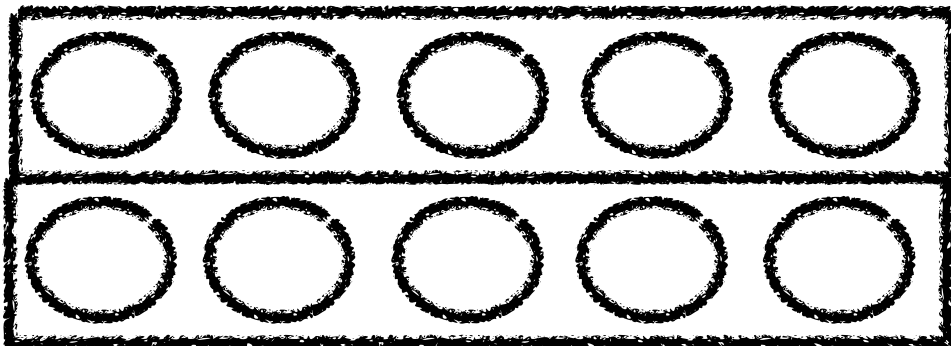
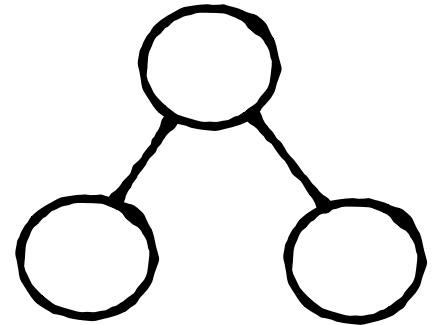
Name: _____



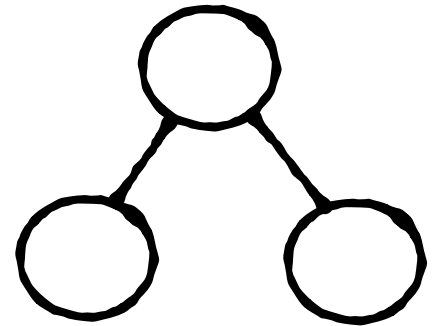
$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 10$$



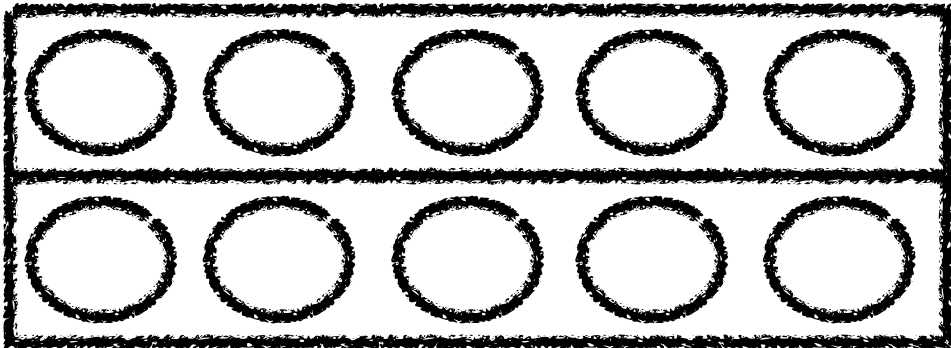
$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 10$$



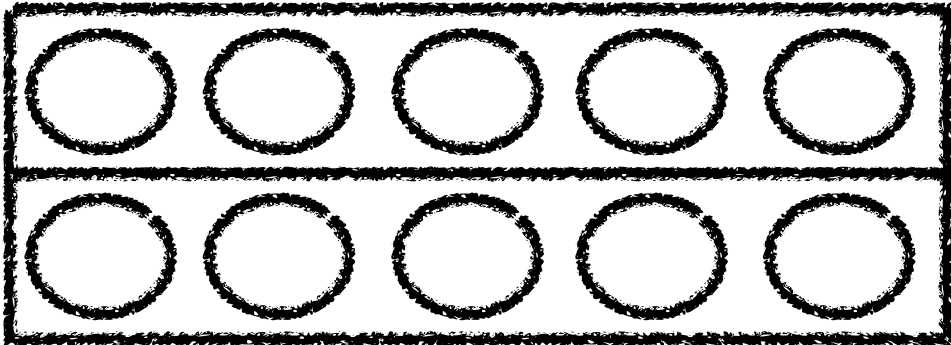
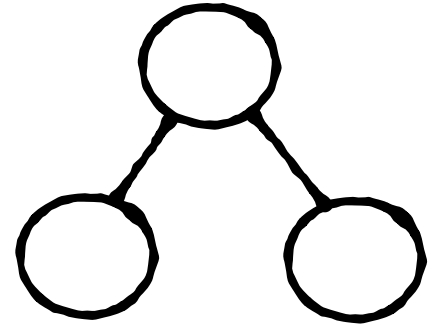
$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 10$$



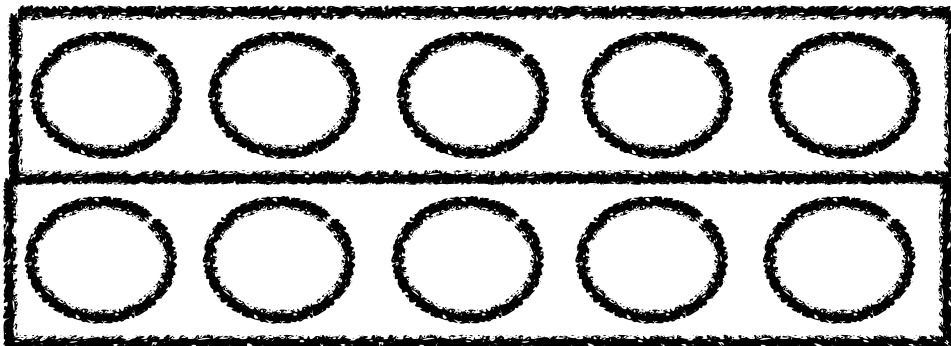
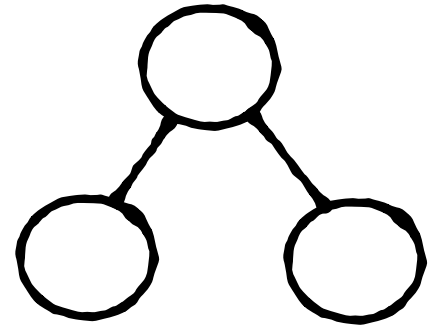
Name: _____



$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 10$$



$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 10$$



$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = 10$$

