

Student Name \_\_\_\_\_

**Topic A: Compositions and Decompositions of 2, 3, 4, and 5**

Rubric Score: \_\_\_\_\_ Time Elapsed \_\_\_\_\_

	Date 1	Date 2	Date 3
Topic A			
Topic B			
Topic C			
Topic D			

Materials: (S) Number bond mat in a personal white board, tub of loose linking cubes, 4 plastic toy animals

- T: (Put 4 toy animals in the whole's place on the number bond. Orient the whole toward the top.) Tell me a story about part of the animals going here (point to part of the number bond) and part of the animals going here (point to the other part of the number bond). Move the animals as you tell your story.
- T: (Turn the number bond mat so that the parts are on top. Put 3 connected linking cubes and 2 connected linking cubes in the parts of the number bond.) Use these linking cubes (present the tub) to complete this number bond. (Students should put 5 linking cubes into the whole's place.)
- T: Replace your cubes with numbers.

What did the student do?	What did the student say?
1.	
2.	
3.	

**Topic B: Decompositions and Compositions of 6, 7, and 8 into Number Pairs**

Rubric Score: \_\_\_\_\_ Time Elapsed \_\_\_\_\_

Materials: (S) 2 5-sticks of same colored linking cubes, number bond mat in personal white board, tub of loose linking cubes

- T: (Put 5-stick of same colored linking cubes and tub of loose same colored linking cubes in front of the student.) Show me 6 with the cubes. Show me 6 fingers the Math way.
- T: (Place the tub of loose linking cubes, two 5-sticks, and the number bond mat in front of the student.) Use the cubes to show me a number bond for 7.
- T: (Put the number bond in a different orientation. Write 8 in the whole of the number bond in front of the student. Be sure that linking cubes are accessible, so that the student may use linking cubes or drawings as support if needed.) Use your marker to complete this number bond. (Note how the student strategizes to solve the problem. What is she using to decompose 8, e.g., mental math, cubes, fingers, drawings? How does she know the quantities for each part: subitizing, counting all, counting on, etc.?)

What did the student do?	What did the student say?
1.	
2.	
3.	

**Topic C: Addition with Totals of 6, 7, and 8**

Rubric Score: \_\_\_\_\_ Time Elapsed \_\_\_\_\_

Materials: (S) Personal white board, story problem templates 1–3, 10 linking cubes (5 red and 5 blue)

- T: (Place Template 1 in front of the student and give him the unconnected linking cubes.) Listen to my story, and watch as I record what I say. Use the cubes to help you to remember my story. I had 6 cubes. Two were red and 4 were blue. (Write  $6 = 2 + 4$  on the white board as you talk.) Tell me what the 6 is telling about in my story. Tell me what the 2 is telling about in my story. Tell me what the 4 is telling about in my story.
- T: (Place Template 2 in front of the student.) Listen to my story, and use the cubes to help you to remember the numbers. There were 5 white puppies and 3 brown puppies in the yard. How many puppies were in the yard? (Write  $\_\_\_ + \_\_\_ = \_\_\_$  on the personal board.) Write the numbers in the addition sentence that matches this story.
- T: (Place Template 3 in front of the student.) Listen to my story, and use the cubes to help you remember the numbers. Jacob had 7 toy cars. He puts some on the shelf and the rest in his toy box. How many could be in each place? Write an addition sentence that matches your story.

What did the student do?	What did the student say?
1.	
2.	
3.	

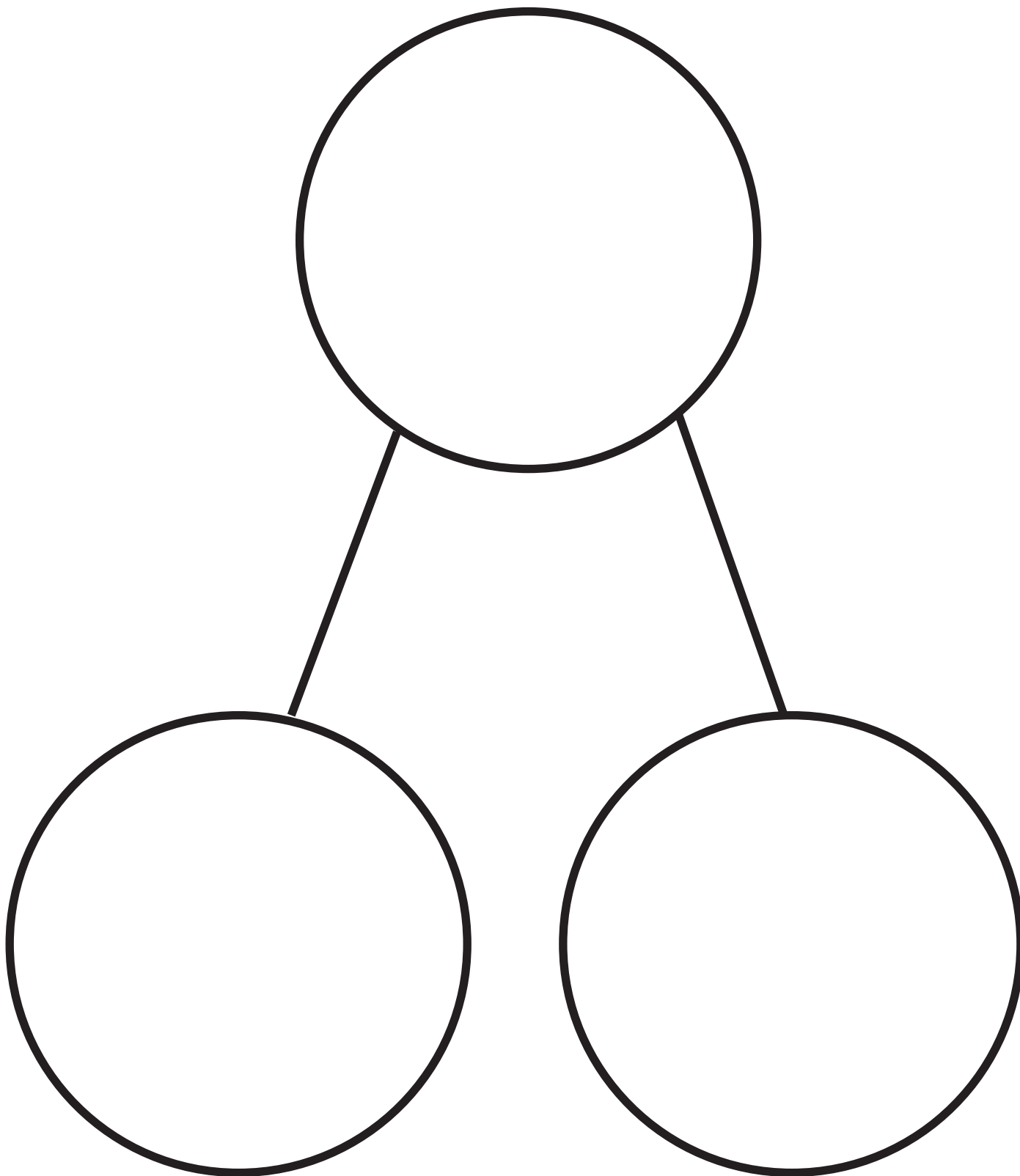
**Topic D: Subtraction from Numbers to 8**

Rubric Score: \_\_\_\_\_ Time Elapsed \_\_\_\_\_

Materials: (S) Personal white board, story problem templates 2–4, 10 red linking cubes

- T: (Place Template 4 in front of the student in the personal board.) Listen to my story, and watch as I record what I say. Use the cubes to help you to remember my story. I had 7 cubes. A boy came and took 2 away. (Cross out 2 cubes and write  $7 - 2 = 5$  below the cubes.) Tell me what the 7 is telling about in my story. Tell me what the 2 is telling about in my story. Tell me what the 5 is telling about in my story.
- T: (Place Template 2 in front of the student.) Listen to my story, and use the cubes to help you to remember the numbers. There were 8 puppies in the yard. Five went into the doghouse. How many puppies were still in the yard? (Write  $\_\_\_ - \_\_\_ = \_\_\_$  on the white board.) Write the numbers in the subtraction sentence to match this story.
- T: (Place Template 3 in front of the student.) Listen to my story, and use the cubes to help you remember the numbers. Jacob had 7 toy cars. He put 4 cars away in his toy box. How many cars was Jacob still playing with? Write a subtraction sentence that matches this story.

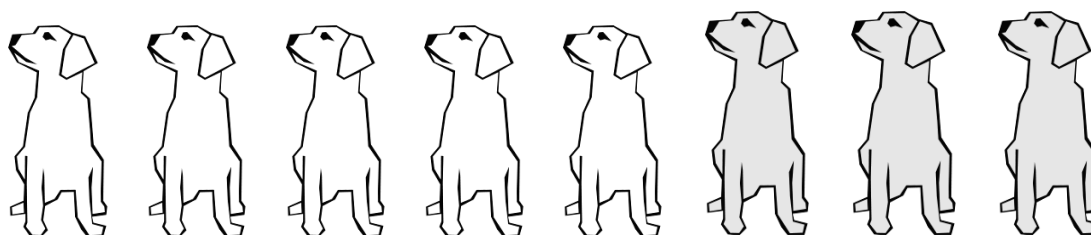
What did the student do?	What did the student say?
1.	
2.	
3.	



## Template 1



## Template 2



## Template 3



## Template 4



Student Name \_\_\_\_\_

Topic E: Decompositions of 9 and 10 into Number Pairs

Rubric Score \_\_\_\_\_ Time Elapsed \_\_\_\_\_

	Date 1	Date 2	Date 3
Topic E			
Topic F			
Topic G			
Topic H			

Materials: Personal white board, number bond mat, 10 loose cubes, 2 pieces of construction paper

- T: (Put the number bond mat in the personal white board and write 10 in the whole's place.) Use your marker to complete this number bond.
- T: Anya's friends brought her 9 presents. They put some of the presents on one table and the rest on the other table. (Place the two pieces of construction paper in front of the student to represent each table.) Use the cubes to show me how Anya's presents could look. Now draw a number bond about Anya's presents.

What did the student do?	What did the student say?
1.	
2.	



**Topic F: Addition with Totals of 9 and 10**

Rubric Score: \_\_\_\_\_ Time Elapsed \_\_\_\_\_

Materials: Personal white board, Template 1, 10 linking cubes, picture templates 5–6

- T: (Show Template 1 to the student and write  $9 = \underline{\quad} + \underline{\quad}$  on the personal white board.) Look at the 5-group dots. How can the dots help you fill in the blanks of the equation? Fill in the blanks.
- T: (Place Picture Template 2 in front of the student.) Listen to my story, and use the cubes to help you remember the numbers. There were 6 orange cars in the parking lot. Four green cars drove in. How many cars are in the parking lot now? (Write  $\underline{\quad} + \underline{\quad} = \underline{\quad}$  on the board.) Write the numbers in the addition sentence to match the story.
- T: (Place Picture Template 3 in front of the student.) Listen to my story, and use the cubes to help you remember the numbers. There were 10 flowers. Eight of them were red and 2 of them were blue. Write an addition sentence that matches this story.

What did the student do?	What did the student say?
1.	
2.	
3.	

**Topic G: Subtraction from 9 and 10**

Rubric Score: \_\_\_\_\_ Time Elapsed \_\_\_\_\_

Materials: 10 linking cube stick (5 cubes one color, 5 cubes a different color), 9 crayons, brown paper bag, personal white board, paper, and pencil

- T: (Give the student a piece of paper and a pencil.) Listen to my story, and watch what I do. When I'm finished you are going to record what you hear and see on your paper. You can use a drawing or a subtraction sentence. I have 9 crayons. I'm going to put 1 in this paper bag. How many crayons are left?
- T: (Give the student the 10-stick of linking cubes.) How many cubes? Break off some cubes and put them on the table. How many did you break off? How many are still in your hand? (As the student tells you how many cubes, write  $\underline{\quad} - \underline{\quad} = \underline{\quad}$  on the personal white board.) Write the numbers in the blanks that tell what you did with the linking cubes.
- T: (Connect the cubes and erase the board. Place both items in front of the student.) Break off a different number this time and record your work by writing a subtraction sentence.

What did the student do?	What did the student say?
1.	
2.	
3.	

**Topic H: Patterns with Adding 0 and 1 and Making 10**

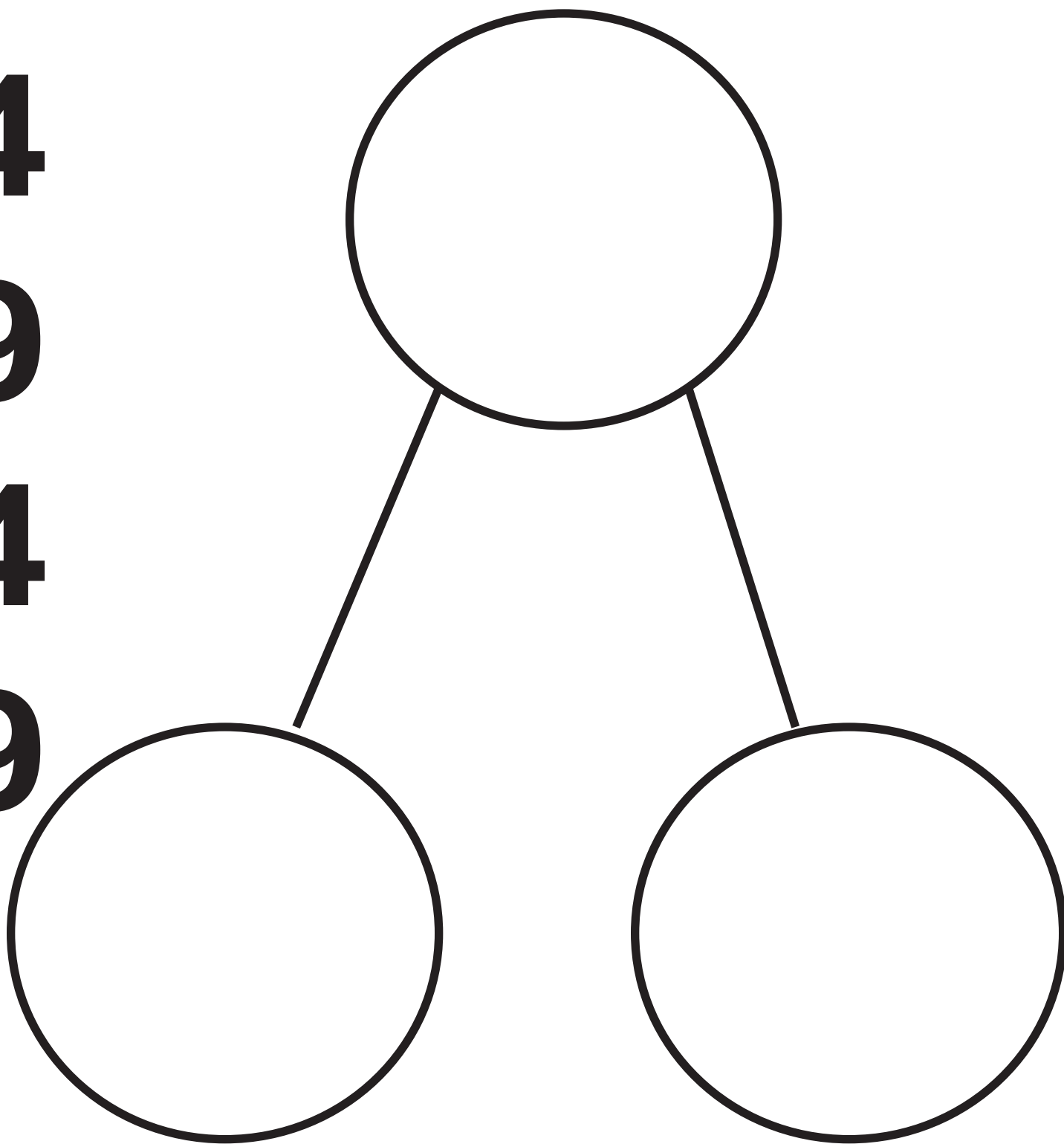
Rubric Score: \_\_\_\_\_ Time Elapsed \_\_\_\_\_

Materials: Template 1, Template 4, linking cubes, personal white board

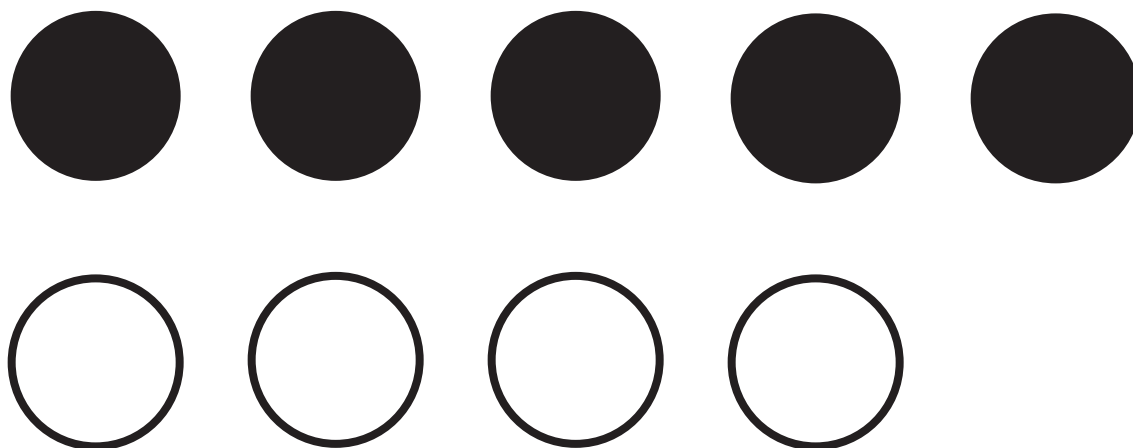
- T: (Place 5 loose linking cubes of the same color in front of the student.) Count and put the cubes together. How many cubes are there? Take zero cubes away. How many cubes are left? Put zero cubes on your stick. How many cubes are there in all?
- T: (Student is still holding their 5-stick from the previous question. Put 5 loose linking cubes of different colors in front of the student.) Put 1 more cube on your stick. How many cubes are there? Put 1 more cube on your stick. How many cubes now?
- T: (Place Template 4 in front of the student.) Listen to my story. Hold up the equation that matches my story. Five fish were swimming in a pond. Then 3 frogs jumped in the pond. Now there are 8 animals in the pond. Which equation matches my story?
- Listen to some more. There were 8 animals in the pond. The 3 frogs jumped out and went home. Now there are 5 animals in the pond. Which equation matches my story?
- T: (Put Template 1 in front of the student.) How many more does 9 need to be 10? Write an equation that shows how many 9 needs to make 10.
- T: (Give the student the personal white board and marker.) Draw the number 7 using a 5-group. How many more does 7 need to make 10? Write an equation that shows how many 7 needs to make 10.

What did the student do?	What did the student say?
1.	
2.	
3.	
4.	
5.	

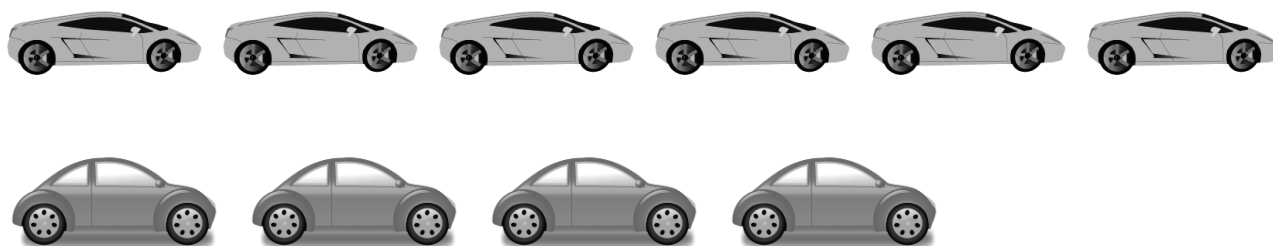
4  
9  
4  
9



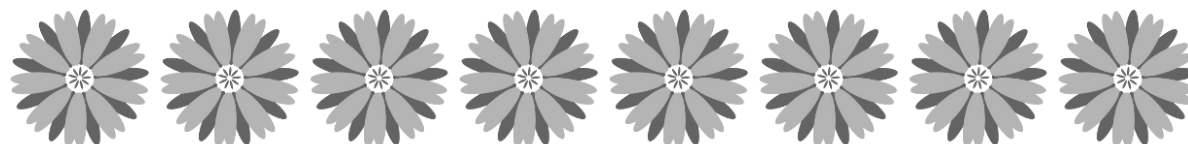
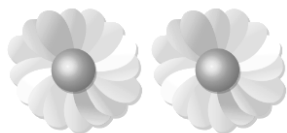
Template 1



Template 2



## Template 3



## Template 4

$$5 + 3 = 8$$

$$8 - 3 = 5$$

$$5 - 3 = 2$$