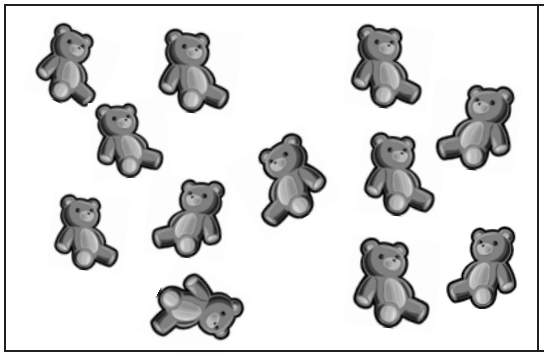
Name _____ Date _____

1. a. Does the picture below show an even or an odd number of teddy bears? Explain your thinking using pictures, numbers, or words in the box on the right.



b. Explain how you know if a number is even.

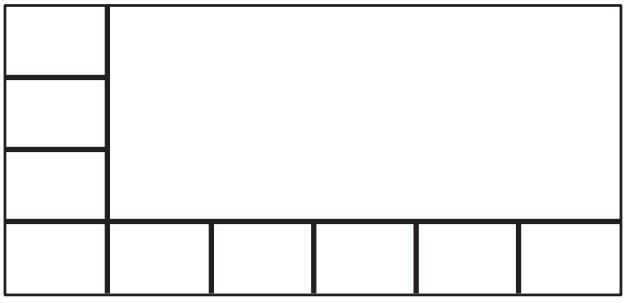
_____

_____

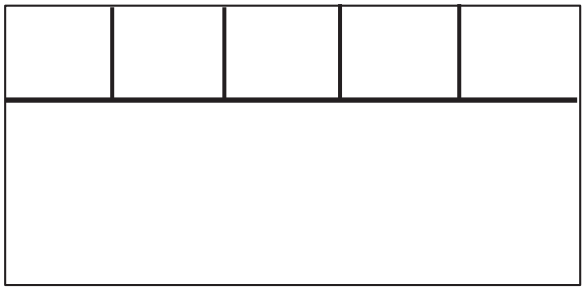
_____

_____

2. a. Complete the array.



b. Using the entire rectangle, draw 3 rows of 5 squares. The first row is done for you. Then, write a repeated addition sentence that describes your array.



_____

c. Henry drew the rectangle below using 12 squares. Draw a different rectangle using 12 squares.

3. Complete each sentence. Explain your thinking using pictures, numbers, or words.

a. 2 groups of 4 make _____.	b. _____ groups of 2 make 6.

4. a. Alex says that 14 is an even number. Do you agree with him? Explain your thinking using pictures, numbers, or words.

b. Draw an array using 14 squares in 2 rows. The rows have been drawn for you.

c. Alex has 14 pencils. He gives all of his pencils to his two friends. Each friend gets the same number of pencils. How many pencils did each friend get? Explain your thinking using pictures, numbers, or words.

End-of-Module Assessment Task Standards Addressed		Topics A–D
Work with equal groups of objects to gain foundations for multiplication.		
2.OA.3	Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	
2.OA.4	Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	
Reason with shapes and their attributes.		
2.G.2	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	

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 students is to achieve Step 4 mastery. These steps are meant to help teachers and students identify and celebrate what students CAN do now and what they need to work on next.

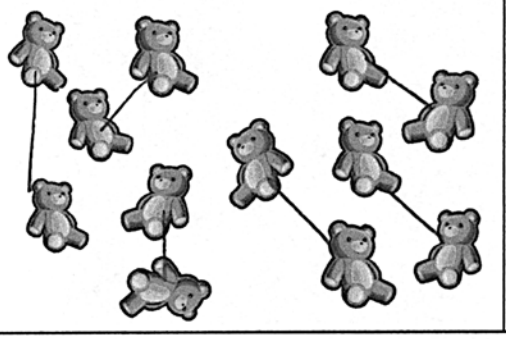
A Progression Toward Mastery				
Assessment Task Item and Standards Assessed	**STEP 1 Little evidence of reasoning without a correct answer. (1 Point)**	**STEP 2 Evidence of some reasoning without a correct answer. (2 Points)**	**STEP 3 Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer. (3 Points)**	**STEP 4 Evidence of solid reasoning with a correct answer. (4 Points)**
1 **2.OA.3**	The student solves zero out of three parts correctly.	The student solves one out of three parts correctly.	The student solves two out of three parts correctly.	The student correctly: a. Answers *even* and explains thinking using pictures, numbers, or words. b. Explains that a number is even using at least one of the following reasons: ▪ A number that occurs as we skip-count by twos. ▪ When objects are paired with none left over. ▪ A number that is twice a whole number (double). ▪ A number whose last digit is 0, 2, 4, 6, or 8.
2 **2.G.2**	The student solves zero out of three parts correctly.	The student solves one out of three parts correctly.	The student solves two out of three parts correctly.	The student correctly: a. Completes the array to show 4 rows of 6. b. Completes the array to show 3 rows of 5 and gives a repeated addition sentence of 5 + 5 + 5 = 15 or 3 + 3 + 3 + 3 + 3 = 15. *c.* Draws a different array using 12 squares.

A Progression Toward Mastery				
3 **2.OA.3** **2.OA.4**	The student solves one out of four parts correctly.	The student solves two out of four parts correctly.	The student solves three out of four parts correctly.	The student correctly: a. Answers 8 and explains thinking using pictures, numbers, or words. b. Answers 3 and explains thinking using pictures, numbers, or words.
4 **2.OA.3** **2.G.2**	The student solves zero out of three parts correctly.	The student solves one out of three parts correctly.	The student solves two out of three parts correctly.	The student correctly: a. Answers *yes* and gives an explanation as to why 14 is even (as stated in 1(b)). b. Completes the array to show 2 rows of 7. c. Answers 7 and explains thinking using pictures, numbers, or words.

Name Roberto Date _____

1.

a. Does the picture below show an even or an odd number of teddy bears? Explain your thinking using pictures, numbers, or words in the box on the right.



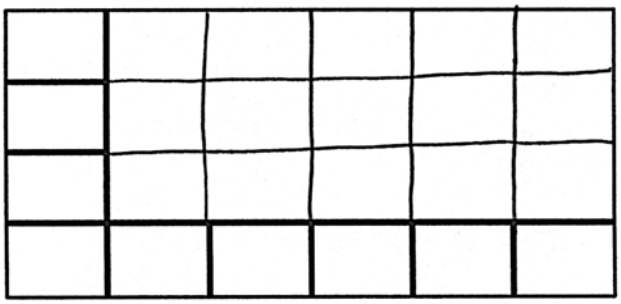
The number of bears is even because I can pair them up with none left over.

b. Explain how you know if a number is even.

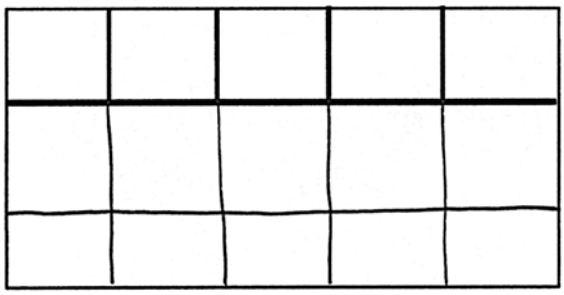
A number is even if you can pair the objects like in Problem 1(a), if you can count by twos to that number, and a number is even if it has 0, 2, 4, 6, or 8 in the ones place.

2.

a. Complete the array.

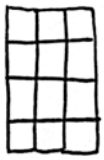


b. Using the entire rectangle, draw 3 rows of 5 squares. The first row is done for you. Then, write a repeated addition sentence that describes your array.



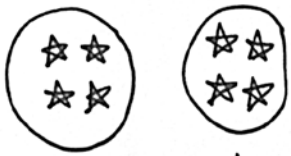
5 + 5 + 5 = 15

c. Henry drew the rectangle below using 12 squares. Draw a different rectangle using 12 squares.



3. Complete each sentence. Explain your thinking using pictures, numbers, or words.

a. 2 groups of 4 make 8.



4 + 4 = 8

b. 3 groups of 2 make 6.

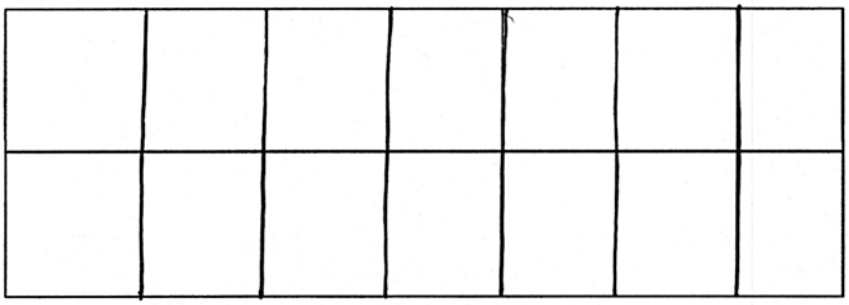
2 + 2 + 2 = 6

4.

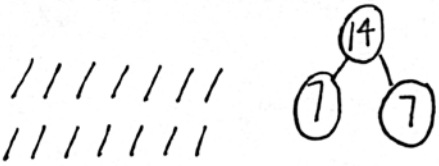
a. Alex says that 14 is an even number. Do you agree with him? Explain your thinking using pictures, numbers, or words.

I agree. 14 is even because it has a 4 in the ones place. Also 7+7=14, so it's a double. Doubles are even.

b. Draw an array using 14 squares in 2 rows. The rows have been drawn for you.



c. Alex has 14 pencils. He gives all of his pencils to his two friends. Each friend gets the same number of pencils. How many pencils did each friend get? Explain your thinking using pictures, numbers, or words.



7+7=14, so each friend got 7 pencils. The array shows how he put the pencils in 2 equal groups. When I counted I found he put 7 pencils in each group.