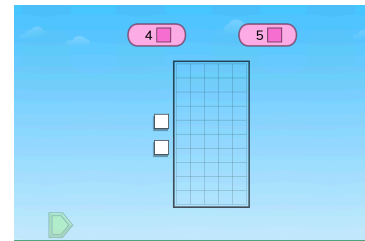
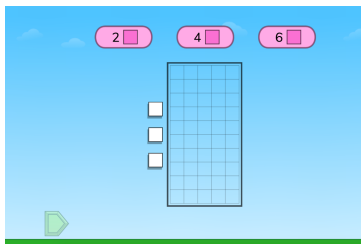


**Materials**

Rows and Columns work mat  
math tools such as centimeter cubes, color tiles, or snap cubes

- Give students centimeter cubes or snap cubes. Display the first puzzle in Level 1. Ask students, “What do you see? What do you think we need to do to solve this puzzle?” Have students Think, Pair, Share their ideas.
- Try a student’s solution and watch the feedback. Discuss with students the rectangle that was created and how they would describe it (e.g., 1 row of 5).
- Repeat with the next puzzle.
- Show a puzzle that has an even number 4 to 10. Play the solution as the students suggest. Ask if there is a different way to show the solution to the puzzle. Redo the puzzle and show the other solution.
- Discuss what students notice about the two solutions. Ask students, “How are the solutions different for the even numbers? Why?”


**Directions**


- Give students centimeter cubes and the Rows and Columns work mat.
- Display the first puzzle in Level 2. Ask students, “How does this puzzle compare to the puzzles we’ve just solved?” Have students work with a partner and use their math tools to solve the puzzle.
- Try a few different solutions and discuss the feedback. Ask students to describe what they are seeing and ways they could name it (e.g., 2 rows of 4 or 4 + 4 or 2 groups of 4, etc.).
- Repeat with 1 -2 other puzzles in Level 2. Then choose one puzzle and try selecting the correct total number of squares but not in an array (e.g., for 2 x 3 select one row of 5 and 1 square) and watch the feedback. Ask students, “Why does this solution not work? Why is this solution NOT an array?”
- Solve the remaining puzzles in Level 2.

**Sample Questions**

- How could we arrange this number of cubes to form an array?
- Is this number even or odd?
- What repeated addition sentence describes this array?
- How could you skip count this array?
- What was your strategy to solve this puzzle?
- Is there another way to solve this puzzle?

**What to look for**

- How does the student:
- represent the puzzles on the Rows and Columns Game Mat?
  - discuss different solutions?
  - explain which solution is an array and which is not?
  - represent the array with a repeated addition sentence?
  - identify even and odd numbers?