

Algebraic Thinking and Operations

"Hip! Hip! Array!"

Objective:

By the end of the activity, the students will be able to

• Recognize the equation that represents a given rectangular array.

Materials:

- "Scoreboard" activity sheet
- "Rectangular Array" cards
- Dry Erase Markers

Teacher Preparation:

- Copy the "Scoreboard" activity sheet and place in sheet protectors for each student.
- Copy and cut the "Rectangular Array" cards.
- Group students into pairs.

Directions:

If needed, model the game for the students. As the students play, observe how the students justify their matching pairs. Ask probing questions throughout the game.

- 1. Mix up the cards, keeping them face down.
- 2. Take turns flipping any two cards.
- 3. If two cards match a picture with its correct equation, take them and add a point to your scoreboard. If not, flip the two cards face down again.
- 4. Keep taking turns with your partner until all cards have a match.

Question(s):

- [Student Name], did your partner find a match? Why? Why not?
- [Student Name], how do you know your cards are a match?

South Carolina College- and Career-Ready Standards for Mathematics:

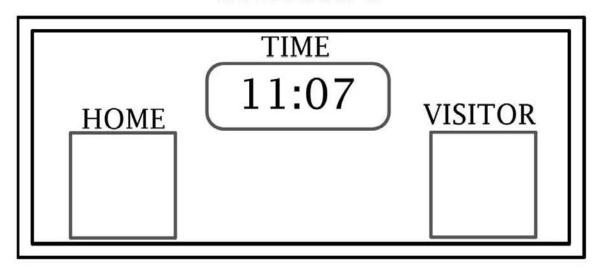
2.ATO.4 Use repeated addition to find the total number of objects arranged in a rectangular array with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Extensions:

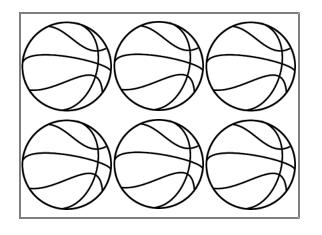
- You may modify the word problem how it best fits your classroom.
- Include subtraction word problems.

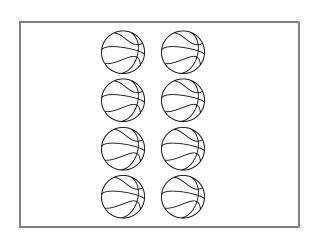


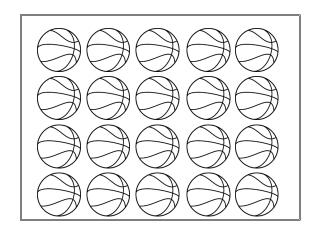
Scoreboard

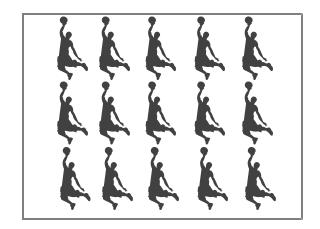


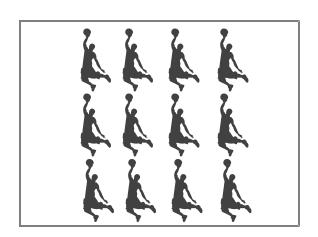
Direction: As you find a match, add a point to the scoreboard above. Write or draw any work below.

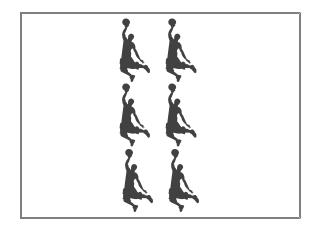


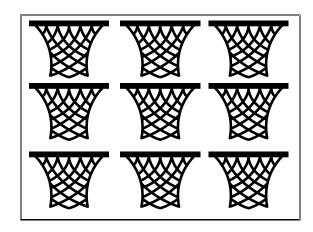


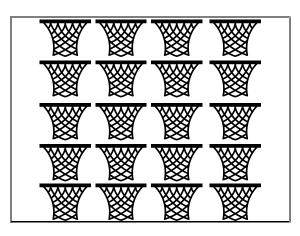


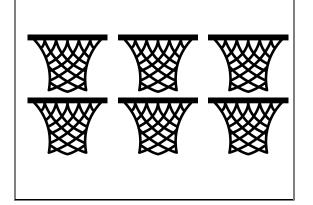












$$3 + 3 = 6$$

$$2 + 2 + 2 = 6$$

$$5 + 5 + 5 = 15$$

$$3 + 3 + 3 = 9$$

$$5 + 5 + 5 + 5 = 20$$

$$2 + 2 + 2 + 2 = 8$$

$$3 + 3 = 6$$

$$4 + 4 + 4 + 4 + 4 = 20$$

$$4 + 4 + 4 = 12$$