## Pass It on!

## **Activity**

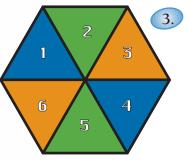
1.

2.

Lance, Alana, Courtney, and Manu are playing Four Square. The rule is that they can pass to any other person or area. Lance starts by passing the ball to Manu, who then passes the ball to Alana.

Alana passes the ball to Courtney. She drops the ball, so the game finishes.

- a. Alana starts the second game. How many possible passes could she make on the first pass?
- **b.** How many different second passes are possible?
- c. What happens to the number of second passes if the rules say that you can't pass the ball back to the person who passed it to you?
- a. How many different ways could the first three passes be made if passing back is allowed?
- b. What would happen to this number of ways if a "no-pass-back" rule was part of the game?

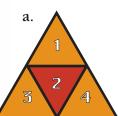


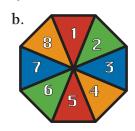
a. If six friends wanted to play Hexaball, how many first passes could be made?

Courtney

- If the no-pass-back rule applies, how many different two-pass combinations can be made on this court? (The ball starts at 1.)
- 4. How many different two-pass combinations could be made on these courts? (The ball starts at 1, and there is a no-pass-back rule. Players can pass to any area.)

Alana





c.	7	4	2
	6	1	8
	3	9	5