

## Additional Practice 15-4

### Make Sense and Persevere

#### Another Look!

Simon has 28 baseball cards and 16 soccer cards. Each month he plans to get 6 more baseball cards and 4 more soccer cards. Will he ever have the same number of baseball cards and soccer cards? Explain.

For each type of card, write a rule and make a table. On the same grid, graph the ordered pairs in each table.

Baseball Cards: Start at 28 and add 6.

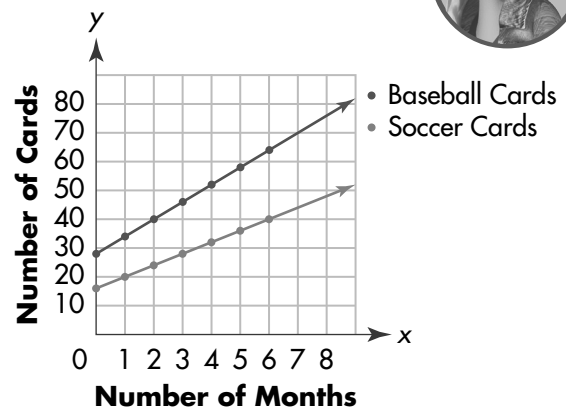
Months	Start	1	2	3	4	5	6
Baseball Cards	28	34	40	46	52	58	64

Soccer Cards: Start at 16 and add 4.

Months	Start	1	2	3	4	5	6
Soccer Cards	16	20	24	28	32	36	40

He will never have the same number of baseball cards and soccer cards. The lines are getting farther apart, so the number of soccer cards will never catch up.

To make sense and persevere, graph ordered pairs then analyze the graph.



#### Make Sense and Persevere

The stingray tank contains 6 inches of water. The shark tank is empty. Each hour, 4 inches of water are added to the stingray tank and 6 inches are added to the shark tank. Will the water in the shark tank ever be as deep as the water in the stingray tank? Explain.

Hours	Start	1	2	3	4	5	6
Depth (in.)	6	10	14	18	22	26	30

Hours	Start	1	2	3	4	5	6
Depth (in.)	0	6	12	18	24	30	36

- Write a rule and complete each table.

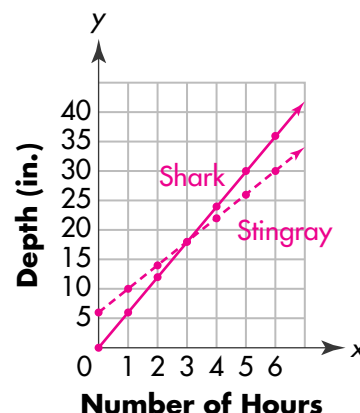
Rule: **Stingray: Start at 6 and add 4.**

Rule: **Shark: Start at 0 and add 6.**

- Graph the ordered pairs in each table.

- Explain whether the depth of water in the two tanks will ever be equal.

**Yes, after 3 hours water in each tank will be 18 inches deep.**



## Performance Task

### Fall Festival

The park district wants to hire a deejay for the Fall Festival. They expect the festival to last no more than 6 hours. Which deejay would be less expensive?

4. **Make Sense and Persevere** How can you use tables and a graph to solve the problem?

**I can make a table for each deejay and graph the ordered pairs. Then I can use the graph to compare the costs of the deejays.**



**DJ Sammy**

\$90 plus  
\$30 per hour



**DJ Zoe**

\$20 plus  
\$40 per hour

5. **Use Appropriate Tools** For each deejay, write a rule and complete the table.

Rule: **Sammy: Start at 90 and add 30.**

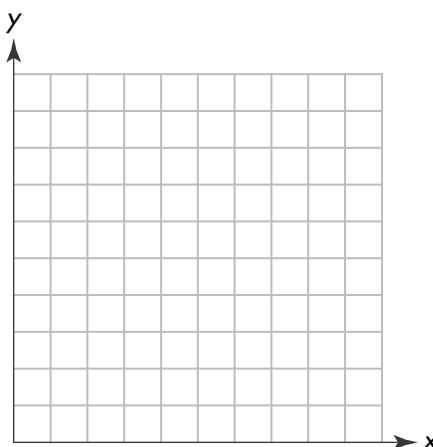
Hours	Start	1	2	3	4	5	6
Cost (\$)	90	120	150	180	210	240	270

Rule: **Zoe: Start at 20 and add 40.**

Hours	Start	1	2	3	4	5	6
Cost (\$)	20	60	100	140	180	220	260

6. **Use Appropriate Tools** On the grid, graph the ordered pairs in each table.

**Check students' graphs.**



7. **Be Precise** Which deejay would be less expensive?

**If the Fall Festival lasts no longer than 6 hours, Zoe would be less expensive.**

