## **More Patterns and Graphing**

16-5

Lila and Steve are saving money. Steve starts with no money and Lila starts with \$6. Each deposits \$2 a day in to a savings account.

Graph the relationship between the amount of money each person saves. Let x = Lila's money and y = Steve's money.

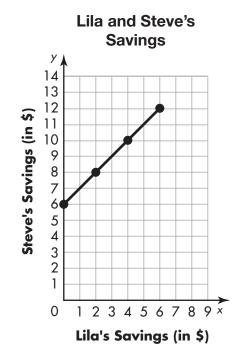
Choose 3 x-values.

Make a table of ordered pairs.

Graph the ordered pairs and draw a line.

Every *x*-value determines a *y*-value, so you can find the value of *y* for each value of *x*.

	Lila	Steve
Start	0	6
Week 1	2	8
Week 2	4	10
Week 3	6	12



For **1** through **3**, use the information below.

Rule for  $y_1$ : Add 3 to the *x*-value. Rule for  $y_2$ : Add 6 to the *x*-value.

X	<b>y</b> <sub>1</sub>	<b>y</b> <sub>2</sub>
1	4	7
2		
3	6	
4		10
5	8	11
6	9	
7		

**1.** Find the missing information in the table using the given rules.

**2.** Find the values of  $y_1$  and  $y_2$  when x = 10.

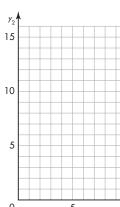
**3.** Graph the relationship between  $y_1$  and  $y_2$  on a coordinate grid.

## **More Patterns and Graphing**

For **1** and **2**, Graph the corresponding coordinates of  $y_1$  and  $y_2$ . Describe the relationship between the two sequences.

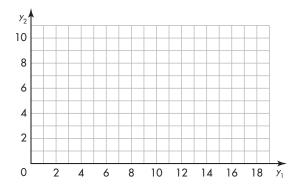
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Day	<b>y</b> <sub>1</sub>	<b>y</b> <sub>2</sub>
1	1	7
2	3	9
3	5	11
4	7	13



2.

Week	<b>y</b> <sub>1</sub>	<b>y</b> <sub>2</sub>
2	4	1
3	8	2
4	12	3
5	16	4



- **3.** Dean is on a hike. The graph shows how far away he is from a camp site. How far away is he after 2 hours?
  - A 5 miles
- C 15 miles
- B 10 miles
- D 20 miles
- **4.** Ian gets \$9 for each hour he works and \$10 for each day he works. To find out how much he makes in a day, he made the equation y = 9x + 10x, where x is the number of hours he works. Explain why lan's equation will not tell him how much he makes in a day.

