

10. Examine the pattern in each table.

Table 1

x	y
-2	3
-1	3
0	3
1	3
2	3

Table 2

x	y
-3	9
-2	4
-1	1
0	0
1	1

Table 3

x	y
0	10
3	19
5	25
10	40
12	46

Table 4

x	y
0	-3
2	-6
4	-9
6	-12
8	-15

- Describe the similarities and differences in Tables 1-4.
 - Explain how you can use each table to decide whether the data indicate a linear relationship between the two quantities.
 - Sketch a graph of the data in each table.
 - Write an equation that represents the relationship between the independent and dependent variables for each linear relationship. Explain what information the numbers and variables tell you about the relationship.
11. a. The temperature at the North Pole is 30°F and is expected to drop 5°F per hour for the next several hours. Write an equation that represents the relationship between temperature and time. Explain what information your numbers and variables represent.
- Is this a linear relationship? Explain your reasoning.

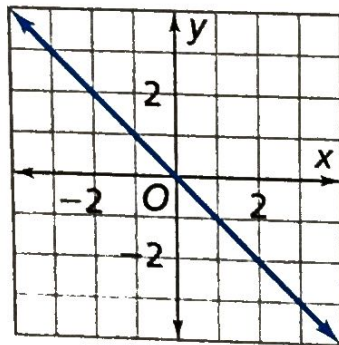
12. Jamal's parents give him money to spend at camp. Jamal spends the same amount of money on snacks each day. The table below shows the amount of money, in dollars, he has left at the end of each day.

Snack Money

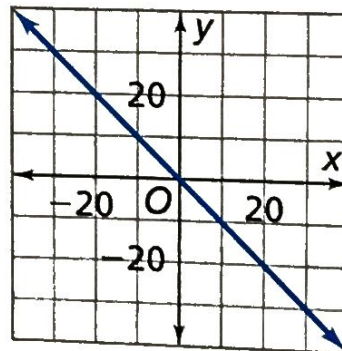
Days	0	1	2	3	4	5	6
Money Left	\$20	\$18	\$16	\$14	\$12	\$10	\$8

- How much money does Jamal have at the start of camp? Explain.
 - How much money does he spend each day? Explain.
 - Is the relationship between the number of days and the amount of money left in Jamal's wallet a linear relationship? Explain.
 - Assume that Jamal's spending pattern continues. Check your answer to part (c) by sketching a graph of this relationship.
 - Write an equation that represents the relationship. Explain what information the numbers and variables represent.
13. Write an equation for each graph.

Graph 1



Graph 2



14. a. Describe a situation that involves a linear relationship between an independent variable and a dependent variable for which the rate of change is:
- positive.
 - zero (no change).
 - negative.
- b. Write an equation that models each situation in part (a).