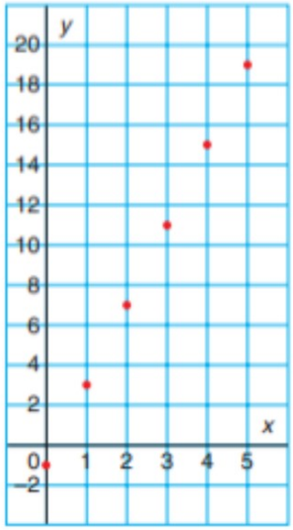
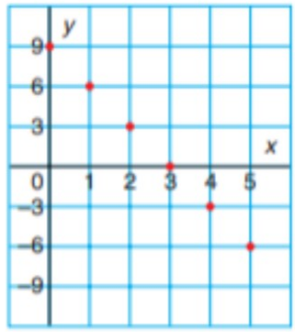
4. Each graph below is a graph of a linear relation. Describe the relationship between the variables in each graph.

a) $y = 4x - 1$ **b)** $y = -3x + 9$

Graph of $y = 4x - 1$



Graph of $y = -3x + 9$



5. Graph each relation for integer values of x from 0 to 5.

a) $y = 2x$ **b)** $y = 3x$

c) $y = 4x$ **d)** $y = 5x$

e) $y = -2x$ **f)** $y = -3x$

g) $y = -4x$ **h)** $y = -5x$

6. Graph each relation for integer values of x from 0 to 5.

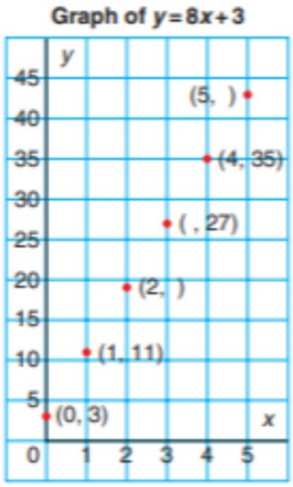
a) $y = 2x + 1$ **b)** $y = 2x - 1$

c) $y = -2x + 1$ **d)** $y = -2x - 1$

e) $y = 3x + 1$ **f)** $y = 3x - 1$

g) $y = -3x + 1$ **h)** $y = -3x - 1$

7. Here is a graph of the linear relation $y = 8x + 3$.



Each point on the graph is labelled with an ordered pair.
Some numbers in the ordered pairs are missing. Find the missing numbers.
Explain how you did this.

9. Use the data from *Example 1*, page 361.
An equation for the linear relation is:
$c = 11 + 2n$,
where n is the number of toppings on the pizza, and c is the total cost of the pizza in dollars. Here is a table of values.

n	0	1	2	3	4	5	6	7	8
c	11	13	15	17	19	21	23	25	27

a) Construct a graph for the data.
b) Describe the relationship between the variables in the graph.
c) Find the ordered pair on the graph that shows the cost of a pizza with 6 toppings.