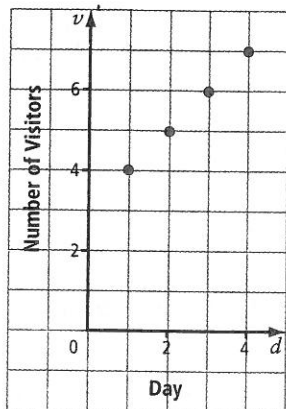


ML7 pg. 379/380

For help with #5 and #6, refer to Example 2 on page 376.

5. The graph shows how many people visited a new web site each day.



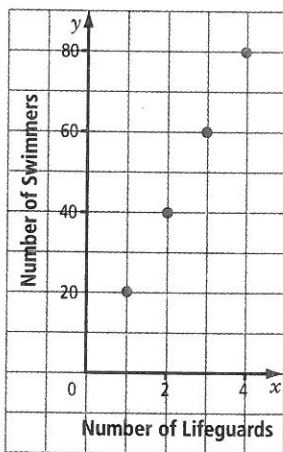
a) Imagine the pattern continues. Make a table of values for the first 7 values of d starting at $d = 1$.

b) Describe the pattern.

c) If the pattern continues, how many people will visit the web site on day 12?

OK

6. The graph shows the number of swimmers allowed in a pool in relation to the number of lifeguards on duty.

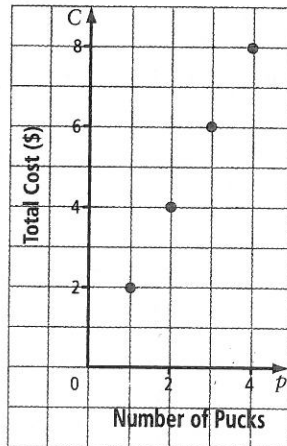


a) Make a table of values for the first 6 values of x starting at $x = 1$.

b) Describe the pattern.

c) If there are 12 lifeguards on duty, how many swimmers are allowed in the pool?

8. The graph shows the total cost in relation to the number of hockey pucks you buy.

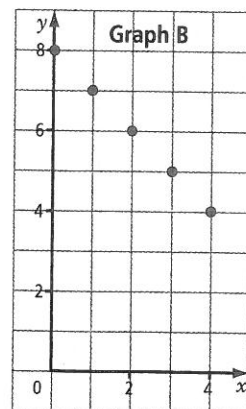
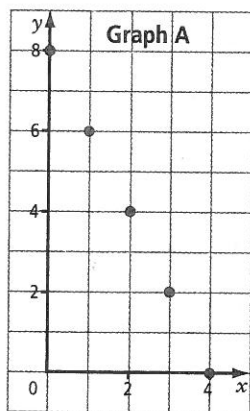


a) Describe the relationship between the total cost and the number of pucks you buy.

b) How much do 9 pucks cost?

c) You decide to buy a hockey stick for \$30 and some pucks. What is the relationship now?

9. Faheen says that Graph A shows $y = 8 - 2x$, and Graph B shows $y = 8 - x$. Is she correct? Explain how you know.



Apply

7. For each table of values, describe the relationship between y and x . Use an expression and a linear relation.

a)

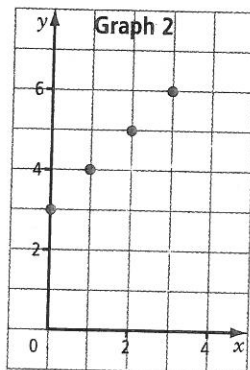
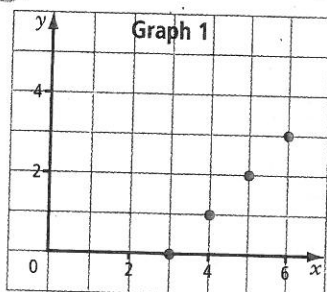
x	y
0	0
1	7
2	14
3	21

b)

x	y
3	1
4	2
5	3
6	4

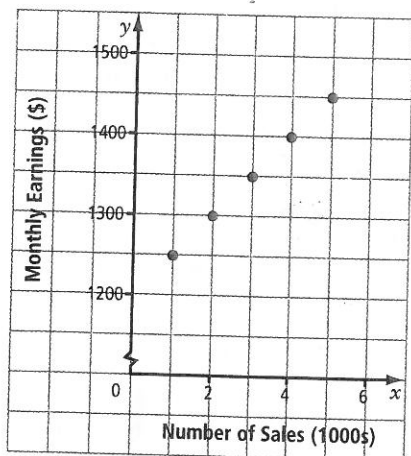
10. a) The relationship $(n, 2n + 3)$, can be written as the linear relation $f = 2n + 3$. Make a table of values for $n = 0, 1, 2, 3, 4, 5, 6$.
- b) Draw a graph using the ordered pairs from your table of values.
- c) What is the value of f if $n = 12$?

11. Which linear relation goes with each graph?



- a) $y = x + 3$
 b) $y = x - 3$

12. The following graph shows the monthly earnings for a salesperson selling widgets in quantities of 1000.



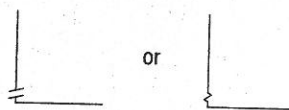
- a) Make a table of values for the five points shown on the graph.
- b) Explain how you could use the graph to find the monthly earnings if the salesperson sold 8000 widgets.

- c) If the pattern continues, how many widgets would need to be sold in a month to make \$1700?

Literacy Link

A break in the y-axis of a graph means the length of the axis has been shortened.

The break is shown as



13. Halley's comet appears on average every 76 years.

- a) Copy and complete the table of values to show when it has appeared since it appeared in 1606.

Sightings After 1606	Year
1	
2	
3	
4	
5	

- b) How many times has Halley's comet appeared since 1606?
- c) In what year is Halley's comet expected to appear next?
- d) What is an expression that describes the year Halley's comet will appear for the n th time? What does n represent?
- e) In what year will Halley's comet appear for the fifteenth time after 1606? Show how you found this answer.

