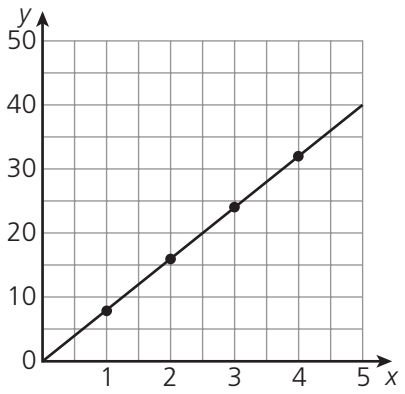
Contents

Representing Data

Numerical relationships can be represented with words, equations, tables, and graphs.

Salmon is on sale for $8.00 per pound. The cost for x pounds is y dollars, where $y = 8x$.

x	y
1	8
2	16
3	24
4	32



A straight line on a graph represents a steady rate of increase or decrease.

Read each problem. Circle the letter of the best answer.

1 Ron earns w dollars per hour working at a restaurant. Which amount in dollars can be described by the expression $8(w + 3)$?

A the amount Ron earns working 8 hours

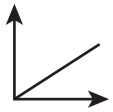
B the amount Ron earns working 8 hours if he gets a $3 tip

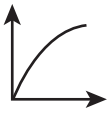
C the amount Ron earns working 8 hours per day for 3 days

D the amount Ron earns working 8 hours if he gets a $3 per hour raise

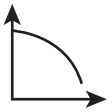
If Ron's hourly wage is increased from w to $w + 3$ and he works 8 hours, the amount in dollars he will earn is $8(w + 3)$. The correct answer is D.

2 Which graph could represent a balloon that rises quickly at first, then slows?

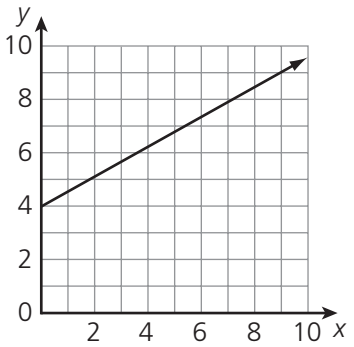
A


C


B


D


Use this graph to answer questions 3 and 4.



3 Which equation describes the line?

A $y = x - 1$

B $y = x + 4$

C $y = \frac{1}{2}x + 2$

D $y = \frac{1}{2}x + 4$

4 If x = time and y = speed, which situation could be described by the graph?

A Kira was walking at a certain speed, then began to slow down.

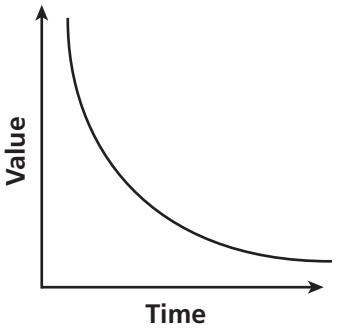
B Kira was walking at a certain speed, then began to speed up.

C Kira was standing still, then began to walk at a steady pace.

D Kira was standing still, then began to walk, gradually speeding up.

Read each problem. Write your answers.

5 Look at this graph.



A Describe a situation that could be represented by this graph.

_____

_____

B Could the graph represent a situation where something's value is changing at a steady rate? Explain why or why not.

_____

_____

6 Tatiana earns $10 per hour planting trees, plus a $40 bonus each day.

A Write an equation to show the relationship between *x,* the number of hours she works on a certain day, and *y,* the amount in dollars she earns that day.

Answer: _____

B Use your equation to complete this table of values.

x	*y*
2	
4	
6	
8	
10	

C Graph your equation on the plane below.