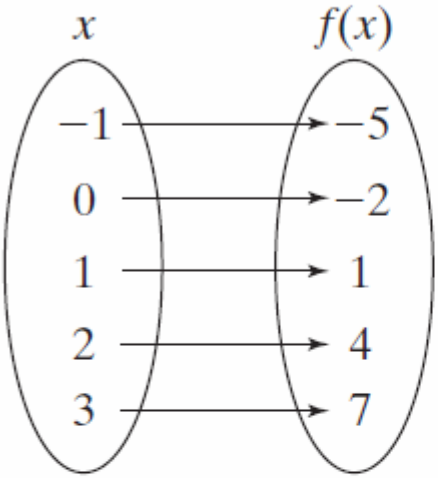
Algebra Quick Quiz 10292019

Question 1.

. One way to represent a function $f(x)$ is to use a mapping diagram like the one below.



Which of the following is NOT another correct way to represent $f(x)$?

A x is every integer between -1 and 3 and $f(x) = 3x - 2$.

B $f(x) = \{(-1, -5), (0, -2), (1, 1), (2, 4), (3, 7)\}$

C $f(x) = 3x + 2$ and the domain is $\{-1, 0, 1, 2, 3\}$.

D The range is $\{-5, -2, 1, 4, 7\}$ and $f(x) = 3x - 2$.

Question 2

Find the range for the function rule $y = 3x + 4$ for the domain $\{-3, -2, -1, 2\}$.

A $\{-3, -2, 4, 6\}$

B $\{5, 10, 12, 16\}$

C $\{-5, 10, 2, 1\}$

D $\{-5, -2, 1, 10\}$

Question 3.

Find $f(-2)$ given $f(x) = x^2 - 3x + 4$.

A 4

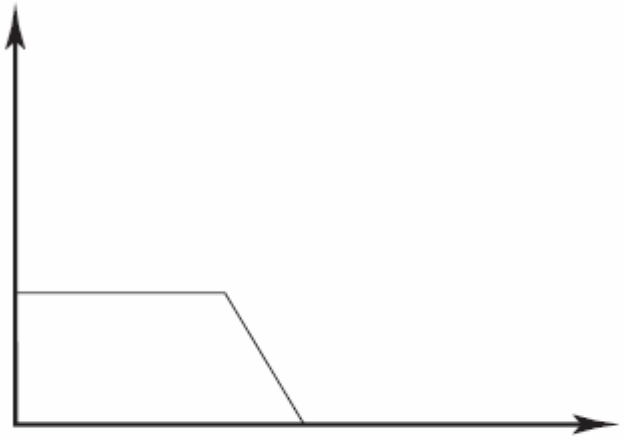
B 6

C 14

D 16

Question 4.

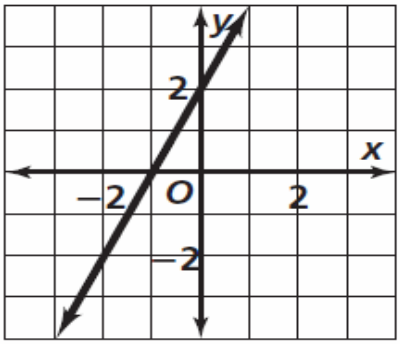
Which of the following is most likely represented by this graph?



A a lawn mower that runs out of gas
B the outdoor temperature on a hot day as it approaches noon
C your speed as you jog and then go up a steep hill
D the weight of a turtle

Question 5.

Which table of values was used to make the following graph?



A

x	−3	−1	0	1
y	−2	−1	2	4

B

x	−3	−2	0	1
y	4	2	2	4

C

x	−3	−1	0	1
y	−4	0	2	4

D

x	−3	−2	0	1
y	−3	−2	2	4

Question 6.

Which situation could the equation $y = 20x + 80$ represent?

A You bought a CD player for $80 and then bought $20 worth of CDs.

B You have paid $20 toward a new television and plan to pay $80 more each month.

C You received 2 gift certificates for $20 for your birthday and already had saved $80 worth of gift certificates.

D You have saved $80 and add $20 to your savings each month.

Question 7.

Which of the following tables can be generated by $y = x^2 + 2$?

A

x	y
−1	1
0	2
1	3
2	4

C

x	y
2	4
0	2
−1	2
−2	8

B

x	y
−2	0
−1	1
0	2
1	3

D

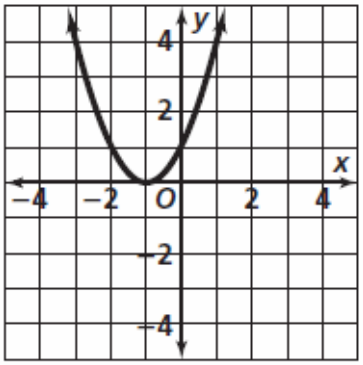
x	y
−1	3
0	2
1	3
2	6

Question 8.

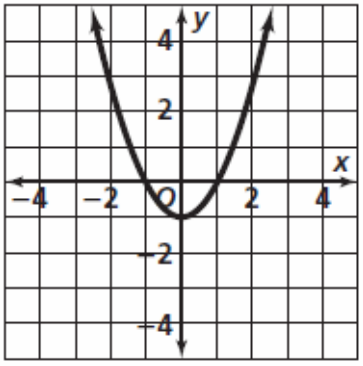
Try to reason this out without the use of graphing software. I trust you to be honest.

Which of the following is the graph of $y = x^2 - 1$?

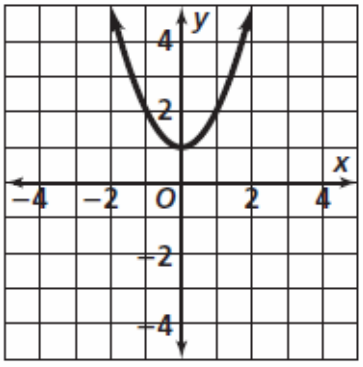
A



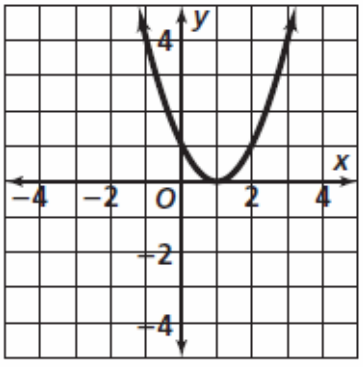
B



C



D



Question 9.

Which of the following is the function rule for the table shown below?

c	$G(c)$
-2	17
-1	5
0	1
1	5
2	17

A $G(c) = c + 19$

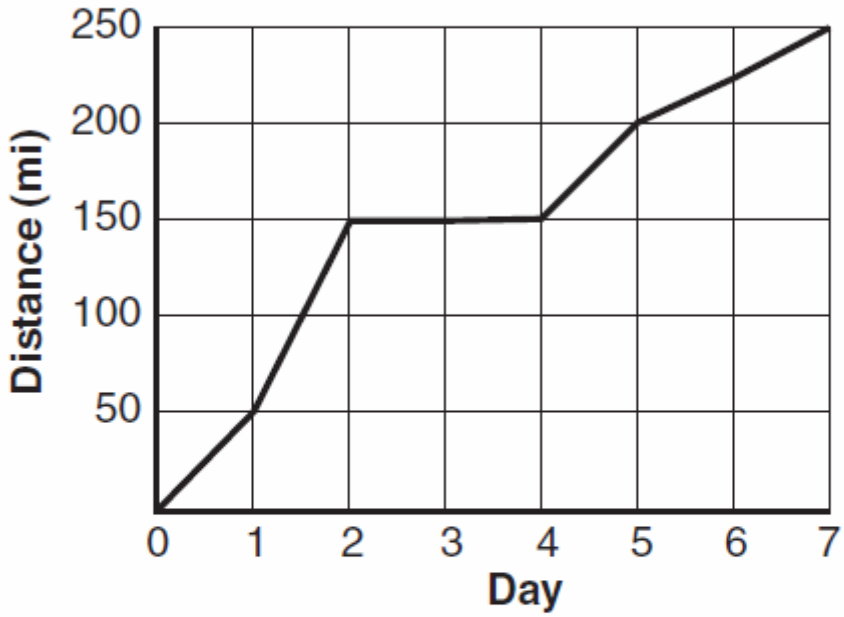
B $G(c) = c^2 + 13$

C $G(c) = c^4 + 1$

D $G(c) = 4c^2 + 1$

Question 10.

The graph shows the cumulative distance Yolanda traveled on her week-long bicycle trip.



Which best describes what happened during Days 2–4?

A Yolanda rode downhill.
B Yolanda rode on a flat place.
C Yolanda took a break from riding.
D Yolanda rode 150 miles each of those days.

Bonus Question

Question 11
I just want to know how many of you already know this.

If $f(x) = |x + 2|$, what is the range for the domain $\{-3, -2, 1\}$?

A $\{0, 1, 3\}$

B $\{1, 3\}$

C $\{1, 3, 4\}$

D $\{-1, 0, 3\}$