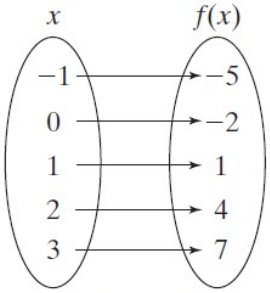
Algebra Quick Quiz1214021

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

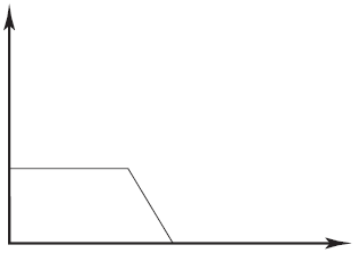
Question 3.

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

A 4
B 6
C 14
D 16

Question 4.

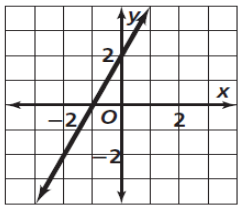
Which of the following is most likely represented by this graph?



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

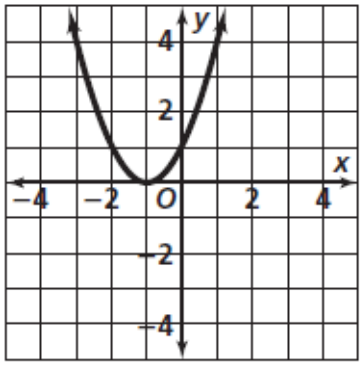
x	y
−1	3
0	2
1	3
2	6

Question 8.

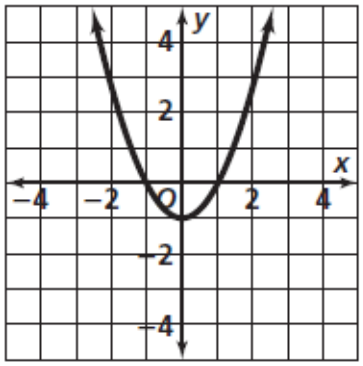
Try to reason this out without the use of graphing software. I trust you to be honest.

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

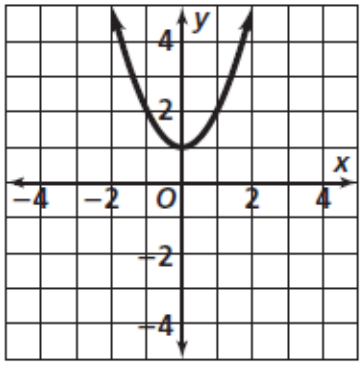
A



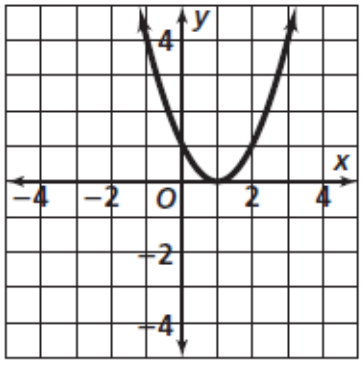
B



C



D



Question 9.

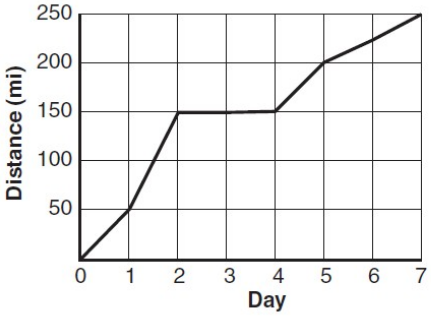
Which of the following is the function rule for the table shown below?

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

Part A

At a clothing store, Ted bought 4 shirts and 2 ties for a total price of $95. At the same store, Stephen bought 3 shirts and 3 ties for a total price of $84. Each shirt was the same price, and each tie was the same price. Which system of equations can be used to find s, the cost of each shirt in dollars, and t, the cost of each tie in dollars?

A. $\begin{cases} 6(s+t) = 95 \\ 3(s+t) = 84 \end{cases}$

B. $\begin{cases} 4s + 2t = 95 \\ 3s + 3t = 84 \end{cases}$

C. $\begin{cases} 7s + 5t = 179 \\ s + t = 12 \end{cases}$

D. $\begin{cases} 7s + 5t = 179 \\ 7s + 5t = 12(s+t) \end{cases}$

Part B

Linda bought 1 shirt and 2 ties at the same store. What is the total price, in dollars and cents, of Linda's purchase?

Enter your answer in the box.