Algebra Quick Quiz 10242023

Question 1.

Which of the following tables does **not** represent a function?

F

x	$f(x)$
2	7
3	10
5	16
8	25

G

x	$f(x)$
1	2
7	2
-4	2
-5	2

H

x	$f(x)$
36	6
36	-6
25	5
25	-5

J

x	$f(x)$
0	36
2	38
9	45
20	56

Question 2

x	y
0	4
3	1
6	$^{-}2$

Which equation **most** likely describes the relation indicated by the table?

F y = x + 4
G y = x - 2
H y = -x + 4
J y = -x - 8

Question 3.

The table shows the relationship between the cost, **c**, in dollars of a taxi ride and the number, **t**, of minutes the ride lasts.

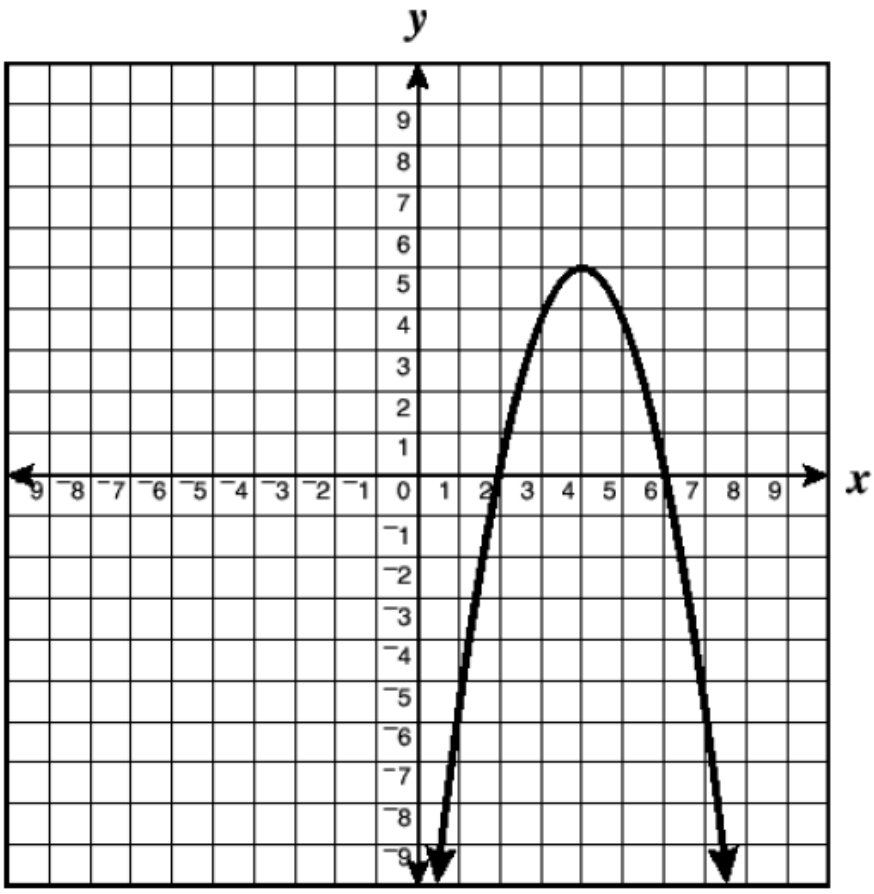
t	5	10	15	20
c	4.75	6.5	8.25	10

Which equation algebraically represents this data?

F c = 3 + 0.35t
G c = 2.75 + 0.5t
H c = t - 0.25
J c = 4 + 0.15t

Question 4.

The graph shows part of a function **f**.



What is the range of the function?

F All real numbers

G All real numbers less than or equal to five

H All real numbers greater than zero

J All real numbers between 2 and 6

Question 5.

In which table are all the points represented by the equation y = (-x/4) + 2?

F

x	0	2	6	8
y	2	1	$\frac{1}{2}$	0

G

x	0	4	6	8
y	2	1	$\frac{1}{2}$	0

H

x	0	4	6	8
y	2	1	0	$^{-}1$

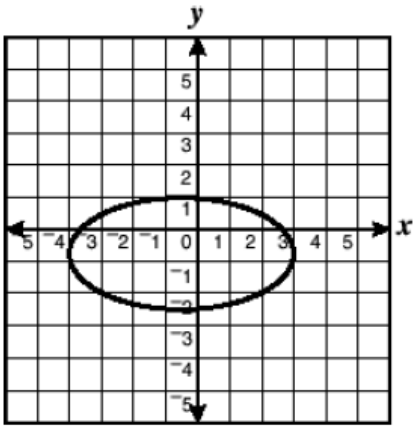
J

x	0	2	4	6
y	2	1	0	$^{-}\frac{1}{2}$

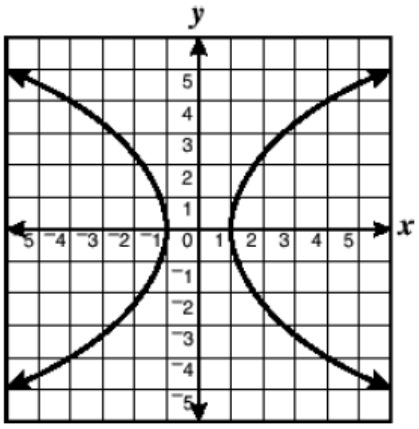
Question 6.

Which of the following represents the graph of a function?

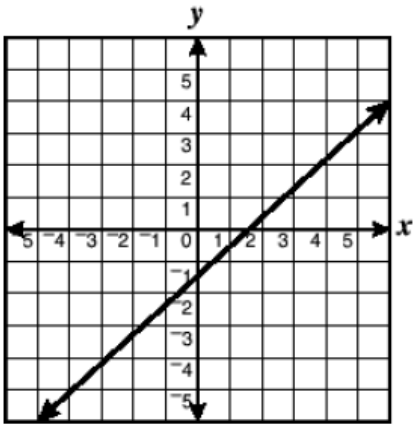
F



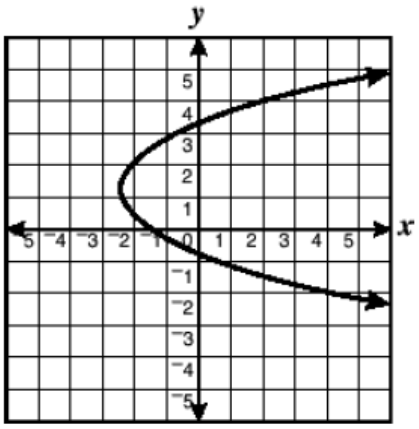
G



H



J



Question 7.

Which of the following sets of ordered pairs is a function?

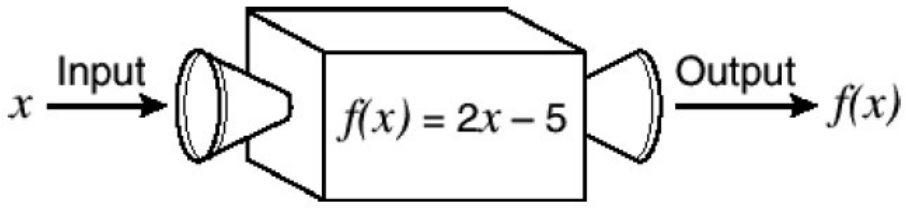
F {(2, 1), (2, 2), (3, 4), (5, 6)}

G {(-2, -1), (1, 2), (3, 4), (1, 5)}

H {(1, 2), (2, 2), (3, 3), (2, 4)}

J {(1, 1), (2, 1), (3, 2), (4, 4)}

Question 8.



Using the function machine from the diagram, what is f(10)?

F 5

G 7.5

H 15

J 25

Question 9.

Which is a zero of the function $f(x) = x^2 + 3x - 4$?

F -4

G -1

H 3

J 4

Question 10.

What is the range of the function f(x) = (1/2)x + 5 when the domain is {2, 4, 6}?

F {-6, -2, 2}

G {6, 7, 8}

H {2, 4, 6}

J {1, 3, 5}

Question 11.
Bonus

Solve the equation $2x^2 + 18 = 12x$ algebraically. Show all your steps and include the solution. Describe an alternate method that can be used to solve the equation.