

October 20, 2023

Algebra 1 Quick Quiz

Question 1.

Which of the following tables represents a function?

F

x	y
4	-2
4	0
4	2
4	4

G

x	y
1	-2
0	0
1	2
4	3

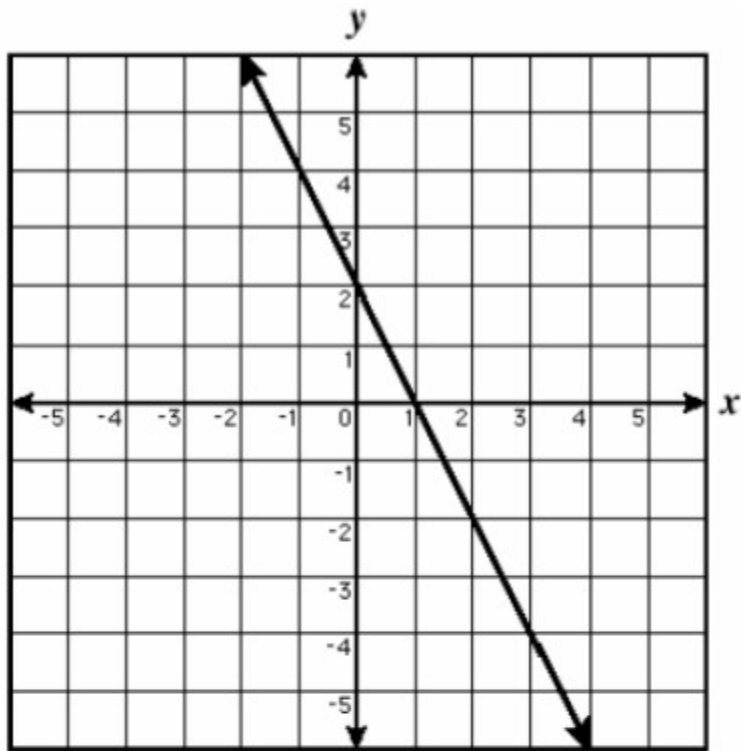
H

x	y
-1	1
0	0
1	1
2	4

I

x	y
2	-4
0	2
2	6
4	8

Question 2.



Which table most likely matches this graph?

F

x	y
2	0
2	2
0	1

G

x	y
1	0
2	3
3	1

H

x	y
0	2
3	-4
1	0

I

x	y
0	1
2	2
4	3

Question. 3.

$(0, -3), (2, -2), (4, -1), (6, 0), \dots$

These ordered pairs follow a pattern. If $(10, y)$ is in this pattern, what is the value of y ?

F 1

G 2

H 3

I 4

Question 4.

x	y
0	-5
2	-3
-2	-7
4	-1
-4	-9

Using the same relationship between x and y as the table, what is the value of y when x is 8?

F -1

G 2

H 3

I 5

5.

What is the domain of the set of ordered pairs $\{(-5, -4), (-4, 4), (2, 3), (4, 5)\}$?

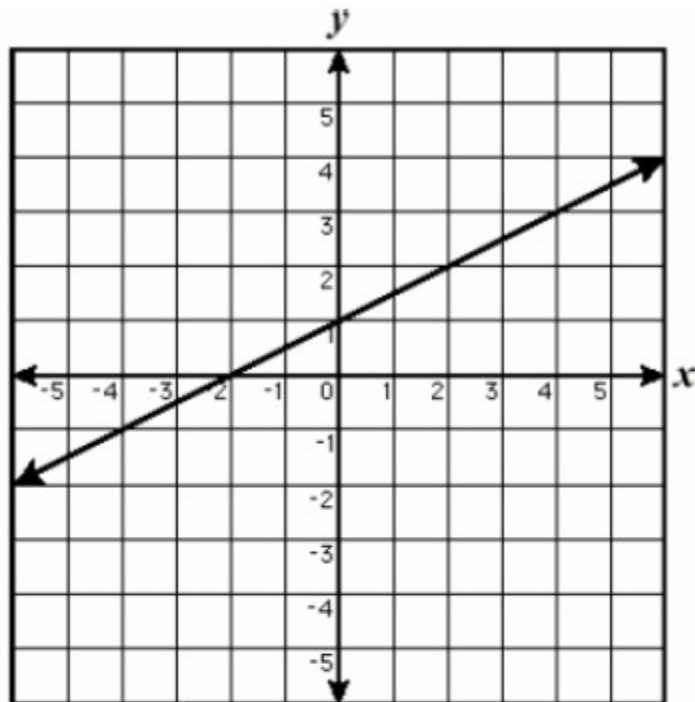
F $\{-5, -4, 2, 4\}$

G $\{-4, 3, 4, 5\}$

H $\{-5, -4, 4, 5\}$

I $\{-5, 2, 3, 4\}$

Question 6.



What is the domain of the function shown above?

F All integers

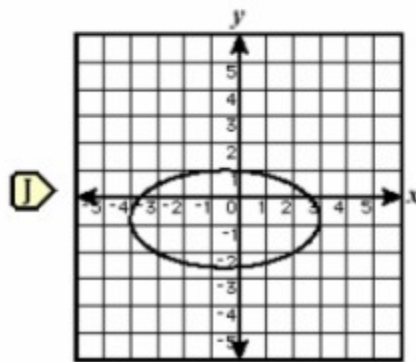
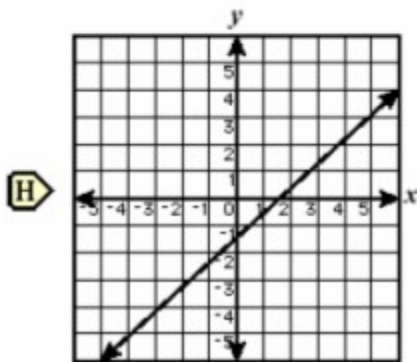
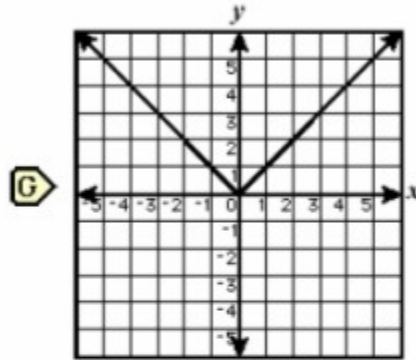
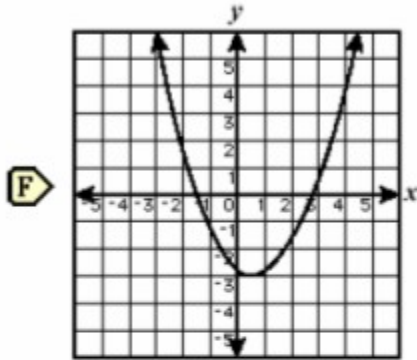
G All real numbers

H All natural numbers

I All whole numbers

Question 7.

Which of the following is not a graph of a function?

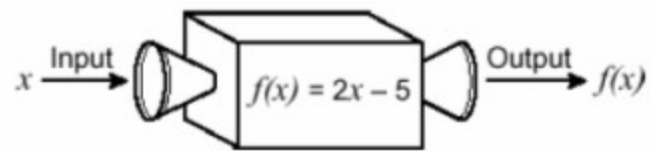


Question 8.

What is the range of the function $f(x) = 5 - 8x$ when the domain is $\{-2, 2, 4\}$?

- F** $\{-27, -11\}$
- G** $\{-27, -11, 21\}$
- H** $\{-2, 2, 4\}$
- I** $\{1/8, 3/8, 7/8\}$

Question 9.



Using the function machine in the diagram, what is the output when 12 is input?

- F 7
- G 8.5
- H 19
- J 29

Question 10.

If $f(x) = (2/3)x - 6$, what is $f(12)$?

- F 2
- G 8
- H 14
- J 27

Question 11.
Bonus

Find the zeros of $f(x) = (x - 3)^2 - 49$, algebraically.