

1. In which set of points is y a function of x ?

A. (0, 9), (1, 9), (0, 10), (1, 10)

B. (3, 7), (4, 4), (3, -7), (-5, 8)

C. (0, 2), (1, 2), (2, 2), (3, 2)

D. (0, 4), (3, 4), (7, 6), (0, -2)

2. In which choice is y a function of x ?

A. (-2, 3), (0, 2), (-1, 1), (0, 0)

B. (4, 1), (1, 4), (-4, 1), (-1, 4)

C. (4, 1), (4, 2), (4, 3), (4, 4)

D. (0, 2), (1, 1), (3, 0), (0, -2)

3. In which table is y a function of x ?

A.

x	y
1	0
2	1
2	2
1	3

B.

x	y
5	2
4	3
3	2
2	1

C.

x	y
-3	2
-1	4
1	6
-3	8

D.

x	y
3	-7
1	-5
1	-3
-5	-1

4. A set of points is shown below in which y is a function of x .

$$(1, 3), (2, 5), (k + 2, 7), (k, 2), (4, 7)$$

Which could be the value of

k

?

A. 1

B. 2

C. 3

D. 4

5. Which relation is a function?

A.

x	y
-2	4
-3	6
-2	7
4	2

B.

x	y
6	12
4	14
6	13
7	16

C.

x	y
-2	6
-4	8
-6	10
-8	6

D.

x	y
-6	5
-6	8
-6	12
-6	-4

6. Which relation is **not** a function?

A.

x	y
-3	5
-5	7
-14	9

-15	11
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B.

x	y
6	2
10	3
10	4
12	5

C.

x	y
-2	5
-4	5
-8	5
-10	5

D.

x	y
-10	-1
-7	-1
-6	-2
-2	-3

7. In which set of points is *not* a function of x ?

A. $\{(0, 2), (8, 4), (-3, 2)\}$

B. $\{(5, 8), (-6, 8), (9, 10)\}$

C. $\{(4, 10), (-4, 3), (4, 9)\}$

D. $\{(0, 1), (1, 1), (2, 1)\}$

8. In the set of points below, y is a function of x .

$(3, 4), (4, 10), (5, 9), (7, 6), (8, 8), (x, 10)$

Which could be the value of

x

?

A. 3

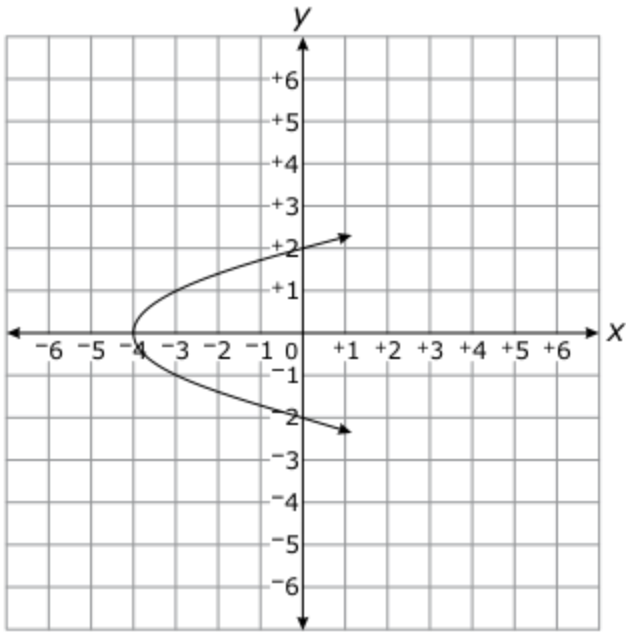
B. 6

C. 7

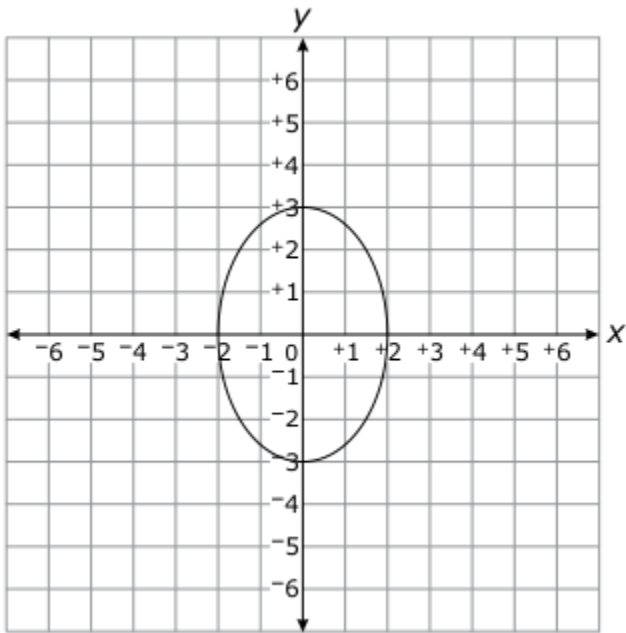
D. 8

9. In which graph is y a function of x ?

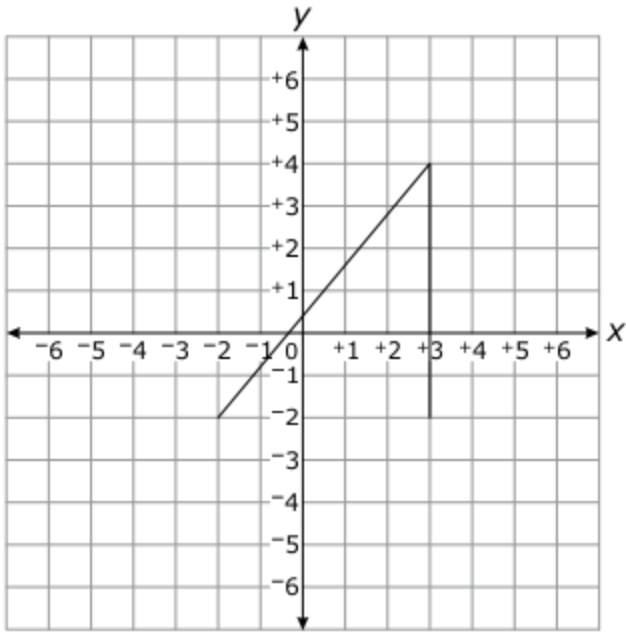
A.



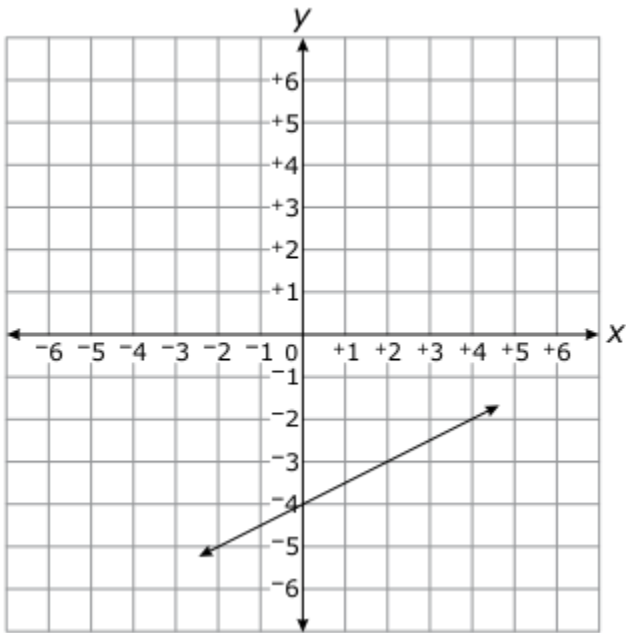
B.



C.

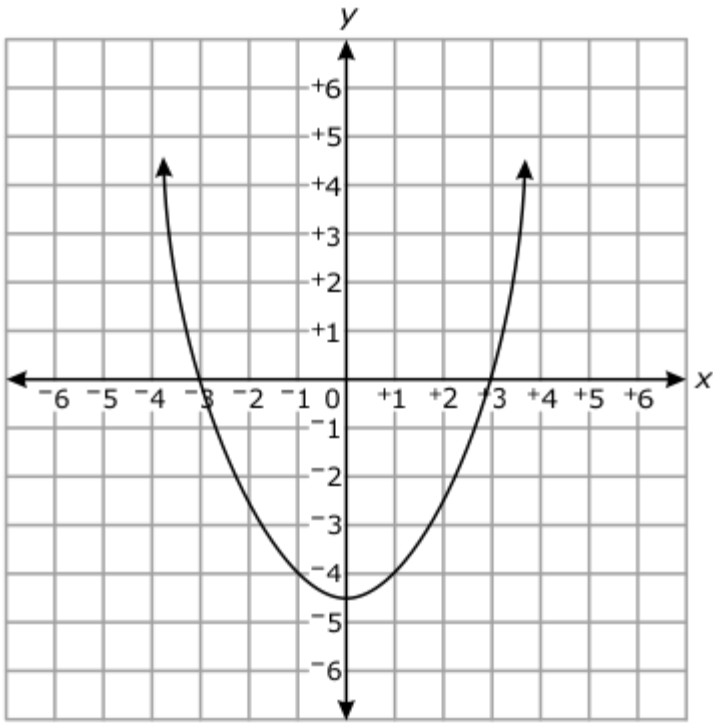


D.

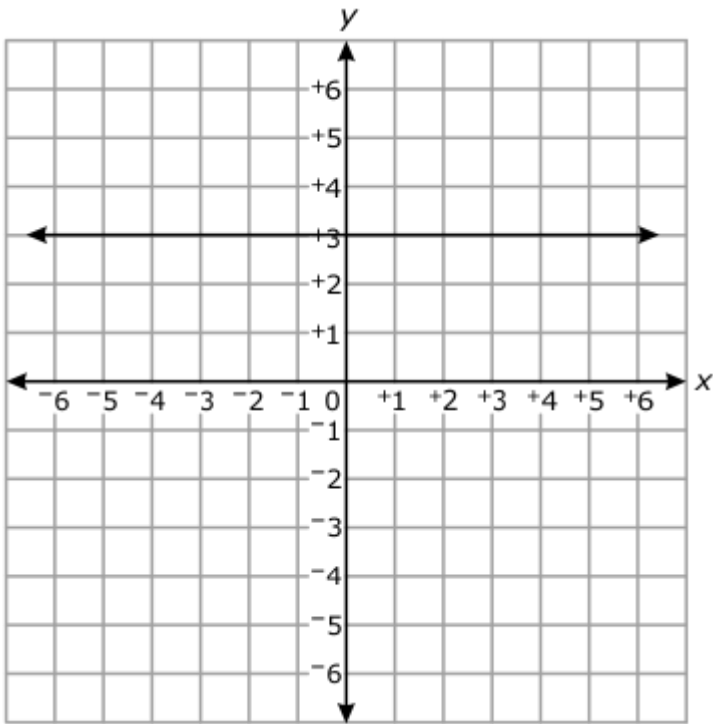


10. In which graph is *not* a function of x ?

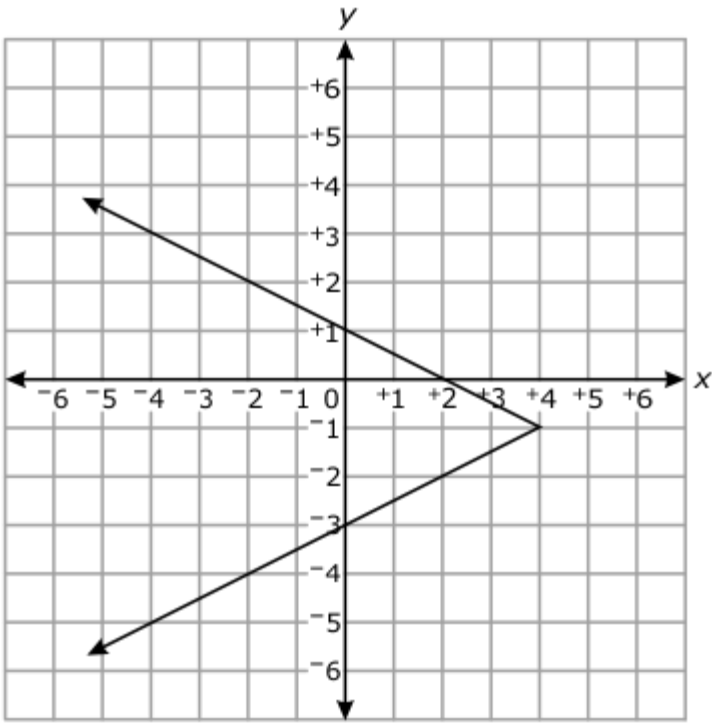
A.



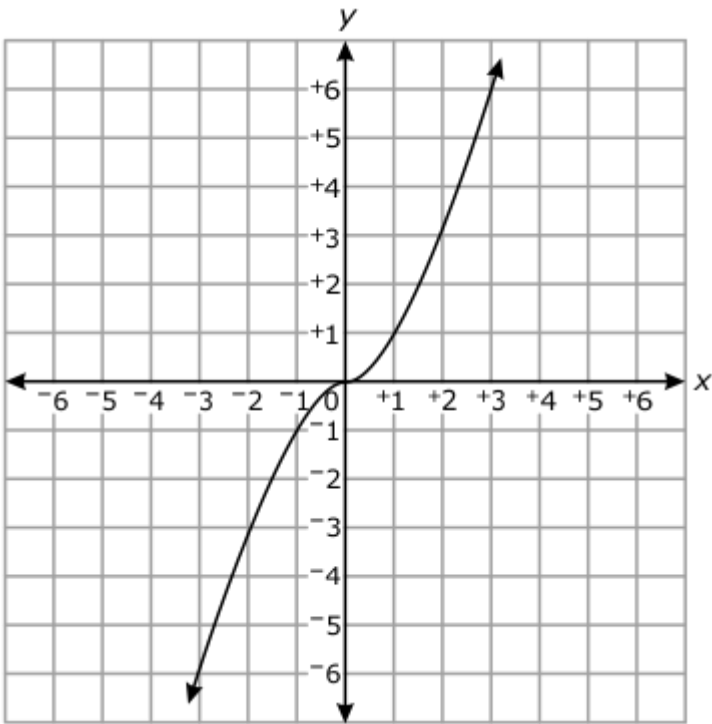
B.



C.

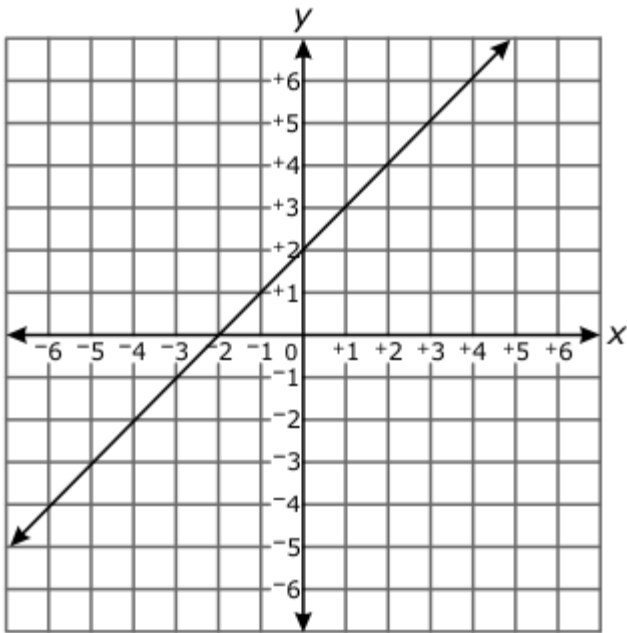


D.

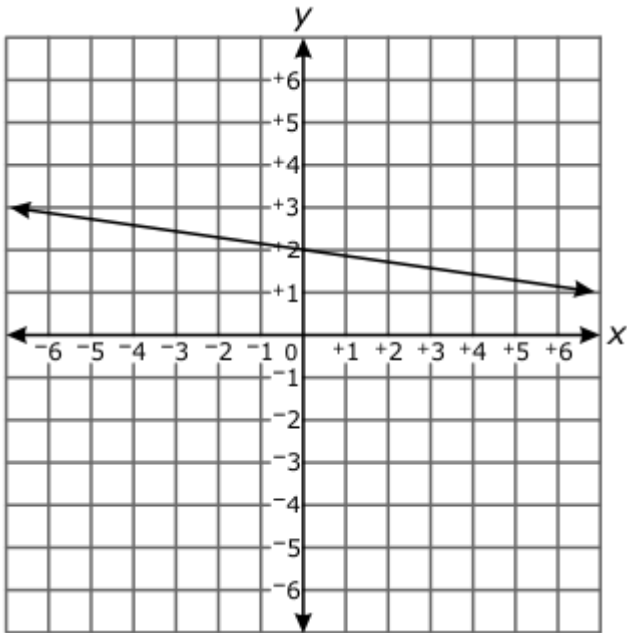


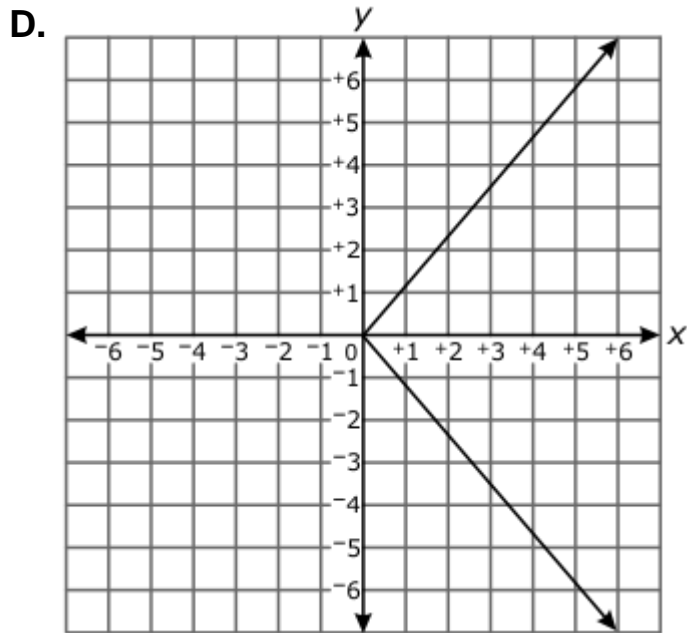
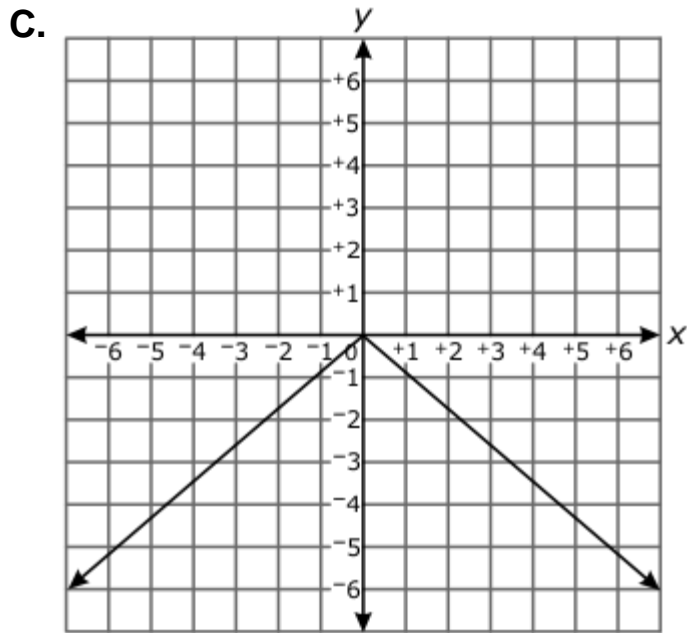
11. Which graph is *not* a function?

A.



B.





12. In which set of points is *not* a function of x ?

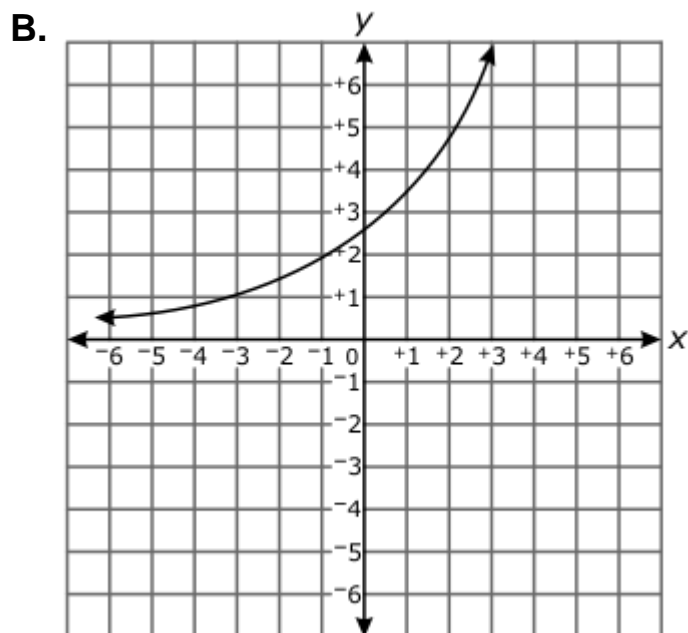
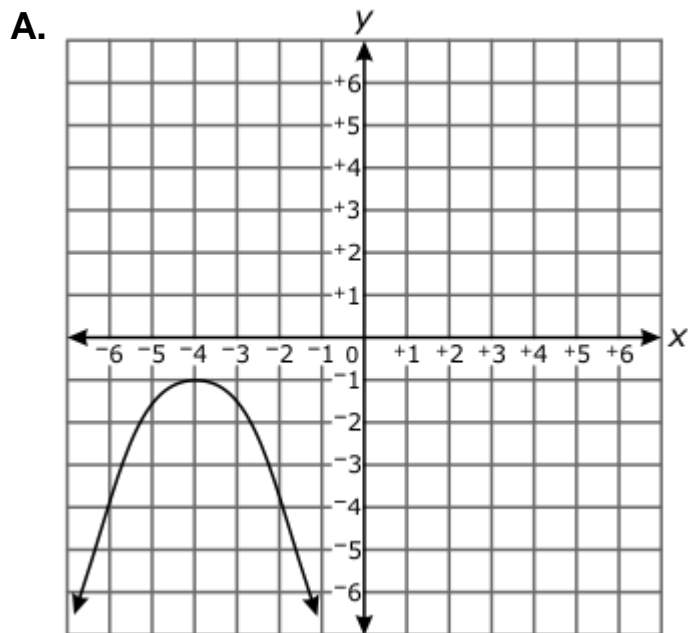
A. $(-3, -1), (-2, 5), (-4, -6), (-9, 5)$

B. $(9, -3), (-3, -9), (-4, -3), (-9, -9)$

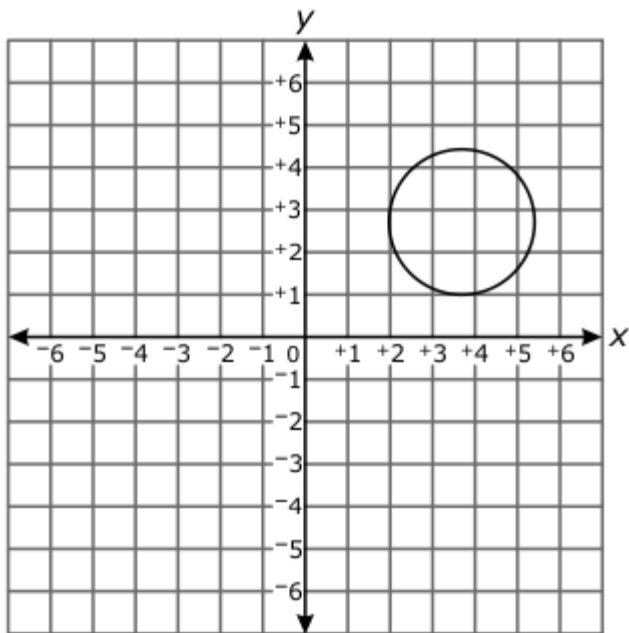
C. $(-3, 0), (0, -3), (-9, 4), (-3, 9)$

D. $(9, -8), (-3, -3), (-6, -9), (-9, 0)$

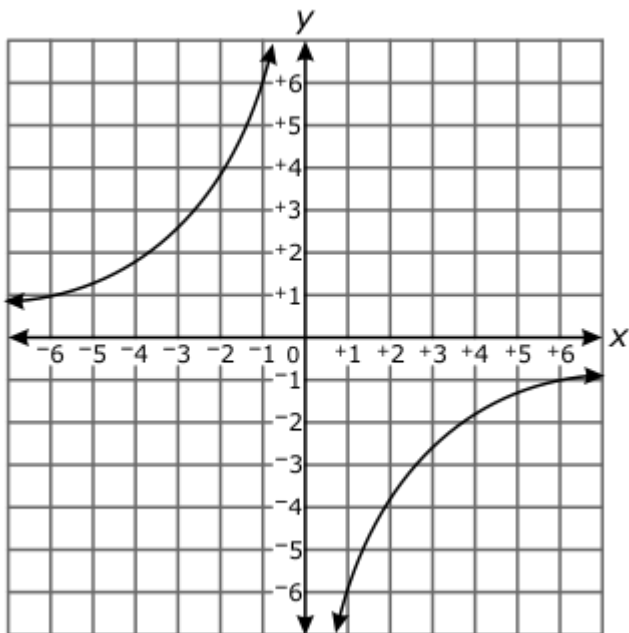
13. Which graph does **not** represent a function?



C.



D.



14. In the table below,

y

is a function of

x

.

x	y
1	4
7	3
?	5
9	5

Which statement is true about the possible value of the missing number in the table?

- A. The missing number must be 9.
- B. The missing number can have any value.
- C. The missing number can have any value except 1 and 7.
- D. The missing number can have any value except 1, 7, and 9.

15. In which choice is *ynot* a function of x ?

A.

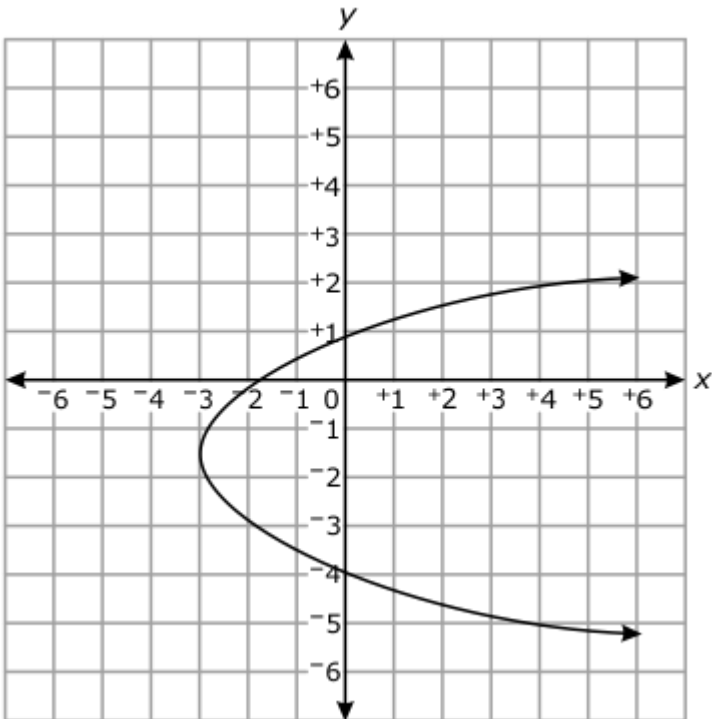
x	y
-3	2
-2	2

-1	2
0	2

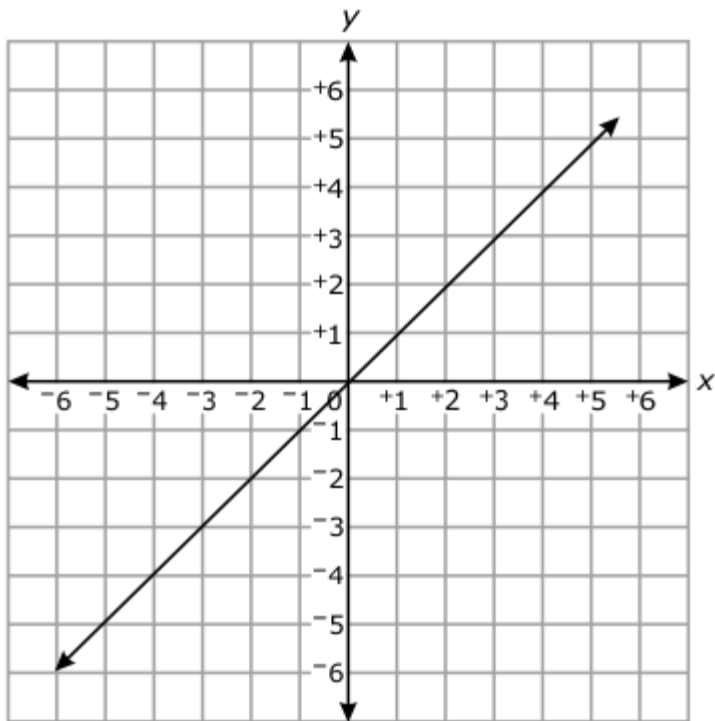
B.

x	y
-10	-10
-5	-5
5	5
10	10

C.



D.



16. A relation is shown below.

$$\{(4, 2), (5, 2), (6, 6), (0, 0), (-4, 4)\}$$

Is the relation a function and why or why not?

- A. No, because each input has only one output.
- B. No, because each output has only one input.
- C. Yes, because each input has only one output.
- D. Yes, because each output has only one input.

17. Which table represents a function?

A.

x	y
1	-4
2	3
3	6
3	-2
4	5

B.

x	y
1	-4
2	3
3	3
4	-2
4	5

C.

x	y
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-4 -4

-2 -2

3 3

4 -4

4 4

D.

x ***y***

1 -4

2 3

3 3

4 -2

5 3

18. A set of ordered pairs is shown below.

$\{(2, 5), (3, 7), (4, 9), (x, 3)\}$

Which value of

x

makes this a function?

A. 2

B. 3

C. 4

D. 5

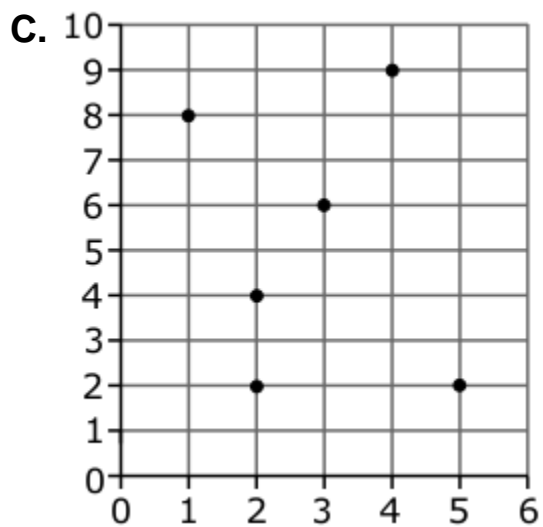
19. Which relation represents a function?

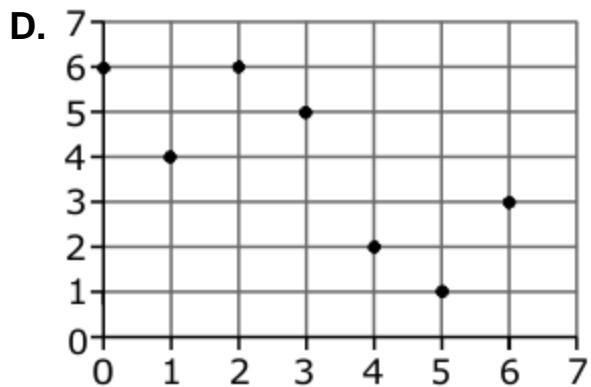
A.

x	-3	-1	0	-1	3
y	6	4	2	0	-2

B.

x	-4	-2	-2	4	6
y	5	3	1	-1	-3





20. The relation $(-2, 5)$, $(4, -2)$, $(6, -1)$, and $(x, 8)$ is a function. Which could be the value of x ?

A. -8

B. -2

C. 4

D. 6

21. Which set of points represents a function?

A. $\{(3, 2), (5, 3), (7, 4), (5, 5)\}$

B. $\{(6, -2), (4, -4), (-6, 0), (4, 5)\}$

C. $\{(-8, 2), (-6, -2), (-4, -1), (8, -2)\}$

D. $\{(-10, -9), (-12, -8), (-14, -7), (-12, -6)\}$

22. In the table below,

y

is a function of

x

.

x	y
-5	6
-3	3
x	0
2	5

Which could be the value of

x

?

A. -5

B. -3

C. 2

D. 5

23. In which table is *ynot* a function of x ?

A.

x	y
-2	3
1	6
3	8
6	11

B.

x	y
-6	-1
-3	-4
-2	-6
-3	-9

C.

x	y
1	2
2	3
3	4
4	2

D.

x	y
6	4
2	3

-2	2
-6	1

24. Which set of ordered pairs represents a function?

- A. $\{(3, 18), (11, -2), (1, 9), (3, 11)\}$
- B. $\{(7, 19), (6, 12), (-7, 7), (3, 1)\}$
- C. $\{(-2, 1), (1, 0), (2, 1), (-2, 0)\}$
- D. $\{(8, 4), (4, 8), (8, 1), (-8, 6)\}$

25. Which set of coordinates represents a function?

- A. $\{(0, 1), (1, 3), (2, 5), (3, 7)\}$
- B. $\{(-1, 2), (-1, 3), (0, 4), (0, 5)\}$
- C. $\{(-1, 2), (0, 4), (1, 6), (1, 8)\}$
- D. $\{(1, 1), (1, -1), (2, 2), (2, -2)\}$

26. The set of ordered pairs $\{(-2, 4), (x, 1), (1, 3), (2, 4)\}$ is a function. Which is a possible value for x ?

A. -2

B. 1

C. 2

D. 3

27. Which equation is not a function?

A. $y = |x|$

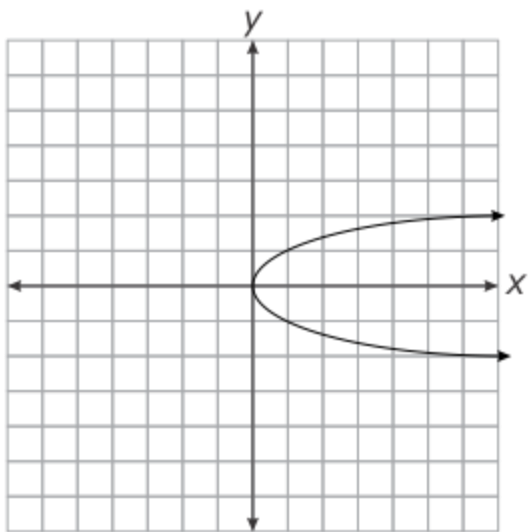
B. $y = x^2$

C. $x = 10$

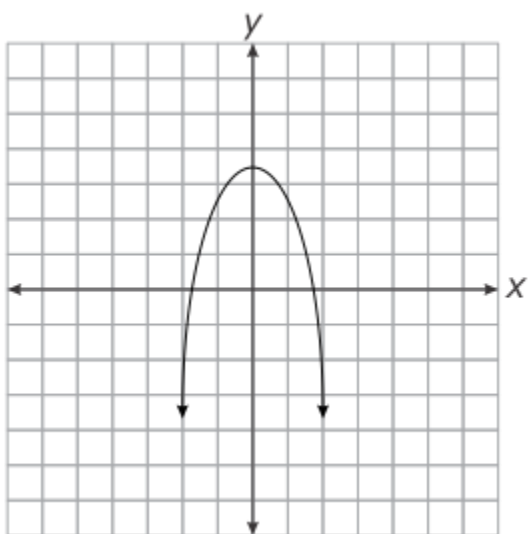
D. $y = 0.5$

28. Which graph below is a function?

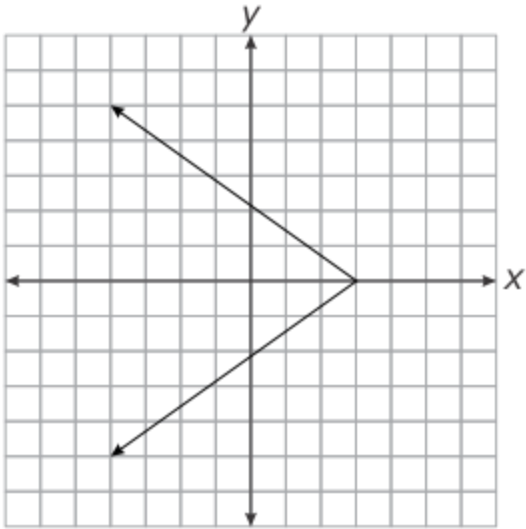
A.



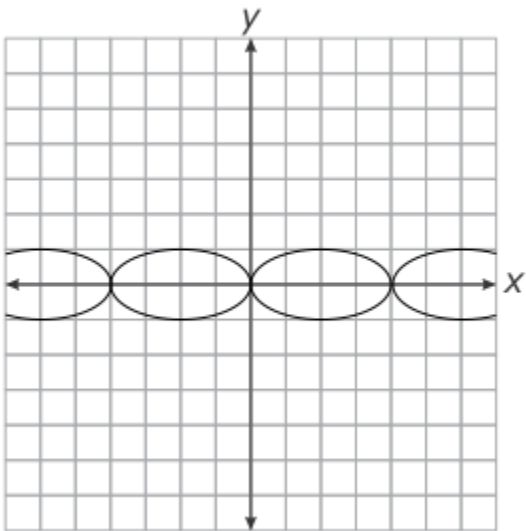
B.



C.



D.



29. Which equation is **not** a function?

A. $y = x$

B. $y = |x|$

C. $x = y + 4$

D. $x = |y + 4|$

30. Which table of ordered pairs is a function?

A.

x	y
0	-4
1	-2
1	-3
2	-2

B.

x	y
-5	-5
-8	8
-8	-8
-12	-12

C.

x	y
3	3
2	2

-2 -2

-3 -3

D.

x	y
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8	16
---	----

7	14
---	----

6	12
---	----

6	10
---	----

31. In which set of ordered pairs is y a function of x ?

A. $\{(-1, 2), (0, 1), (0, 2), (1, 1)\}$

B. $\{(-4, 1), (-3, 1), (-2, 1), (-1, 1)\}$

C. $\{(1, -4), (1, -3), (1, -2), (1, -1)\}$

D. $\{(2, 5), (3, 6), (6, 5), (2, 7)\}$

32. The relation $(8, 5), (x, 4), (3, 3),$ and $(2, 2)$ is a function. Which could be the value of x ?

A. 8

B. 4

C. 3

D. 2

33. Which is a possible value for

n

, if

y

is a function of

x

?

x	y
3	-2
-2	7
0	-2
2	4
n	6

A. 3

B. 0

C. -2

D. -9

34. Which choice represents a function?

A. $x = 4$

B. $y = x - 9$

C.

x	y
-2	3
4	3
-1	4
-2	4
5	5

D. $\{(2, 3), (4, 5), (6, 7), (2, 9), (3, 10)\}$

35. In which table is *not* a function of x ?

A.

x	y
1	4
2	8
4	16
8	32

B.

x	y
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1	12
2	12
3	12
4	12

C.

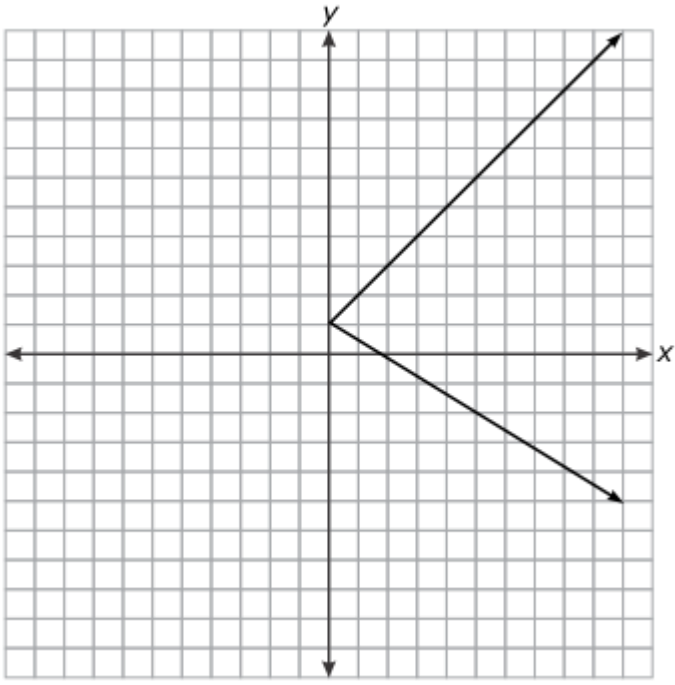
x	y
2	4
3	9
4	16
5	25

D.

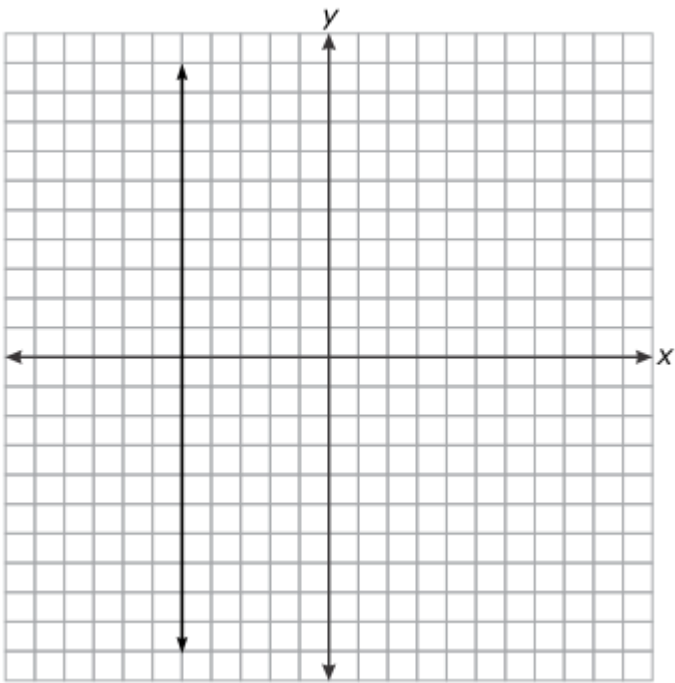
x	y
2	11
2	12
2	13
2	14

36. Which graph represents a function?

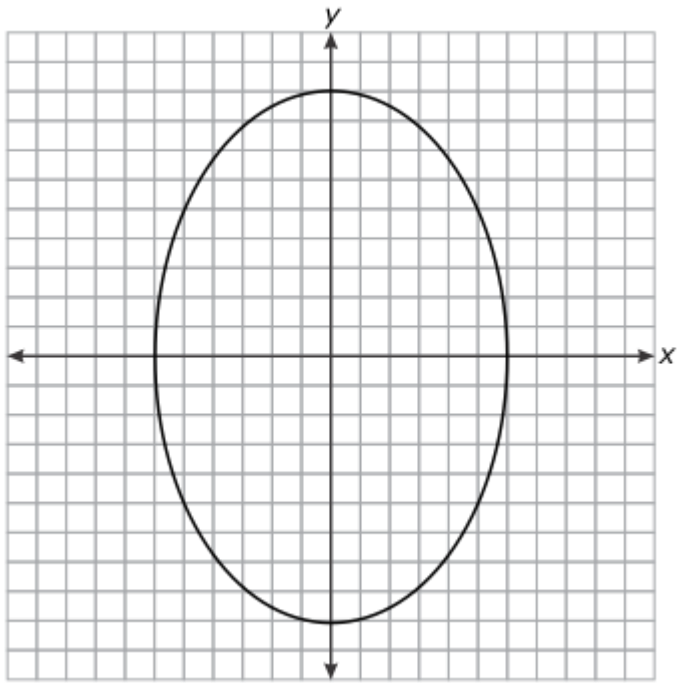
A.



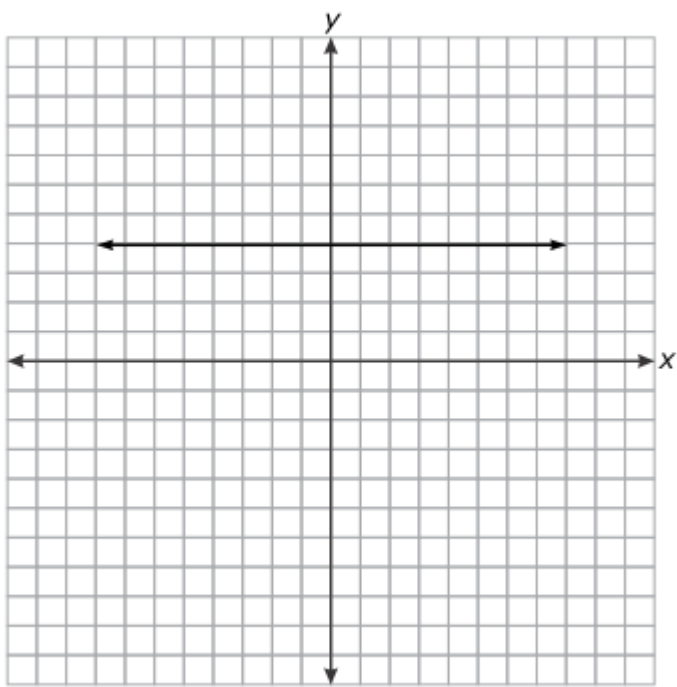
B.



C.



D.



37. Which equation is **not** a function?

A. $x = 3$

B. $y = x$

C. $y = 4^x$

D. $y = x^2 + 1$

38. Which equation is **not** a function?

A. $y = x^2 + 9$

B. $y = -2 - 2x$

C. $x = y$

D. $x = 3$

39. For the relation $\{(7, -3), (8, 4), (-5, 3), (x, 8)\}$ to be a function, x can be which value?

A. 8

B. 7

C. -5

D. -8

40. Which set of ordered pairs is a function?

- A. $\{(3, 8), (4, 1), (5, 3), (6, 1)\}$
- B. $\{(2, 4), (-3, 5), (2, 7), (5, 9)\}$
- C. $\{(-1, 6), (0, 3), (1, 5), (0, -2)\}$
- D. $\{(4, 1), (3, -2), (1, -2), (4, 5)\}$

41. In which table is y a linear function of x ?

A.

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

B.

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

C.

x	y
1	1
2	8
-1	-1
-2	-8

D.

x	y
-1	1
-2	-2
-3	3
-4	-4

42. In which set of ordered pairs is y **not** a function of x ?

A. $\{(-9, -1), (-7, -3), (-5, -8)\}$

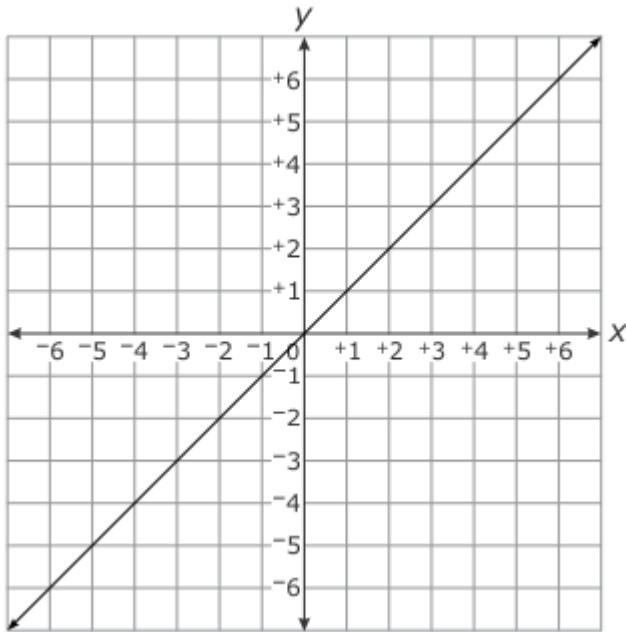
B. $\{(4, -7), (8, -3), (12, -5)\}$

C. $\{(0, 2), (4, 3), (8, 1)\}$

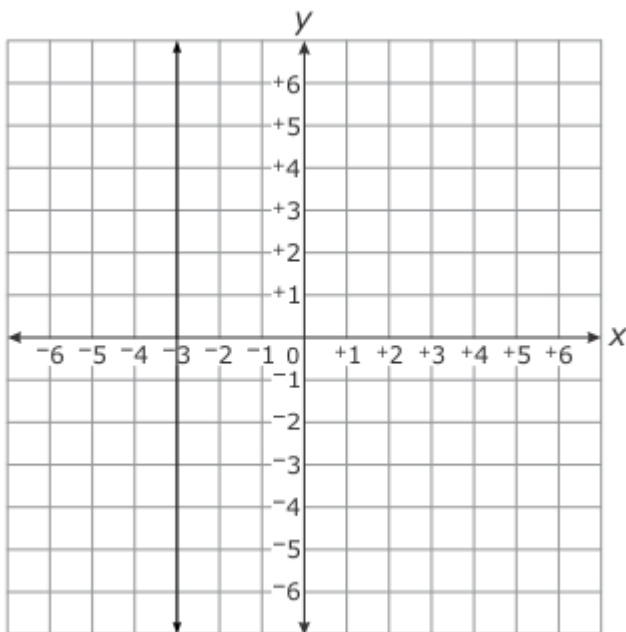
D. $\{(4, 6), (10, 6), (10, 8)\}$

43. In which graph is *not* a function of x ?

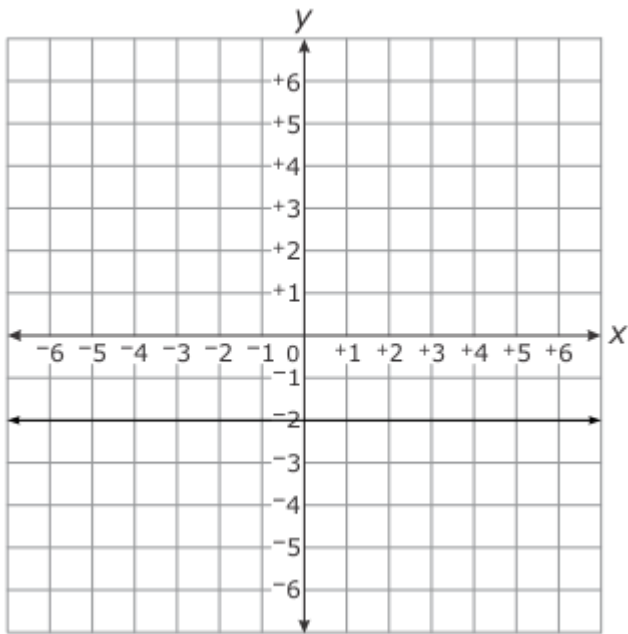
A.



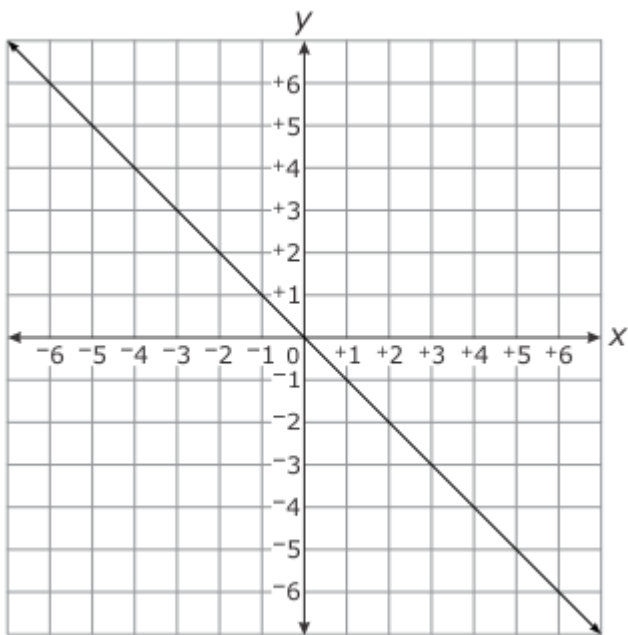
B.



C.

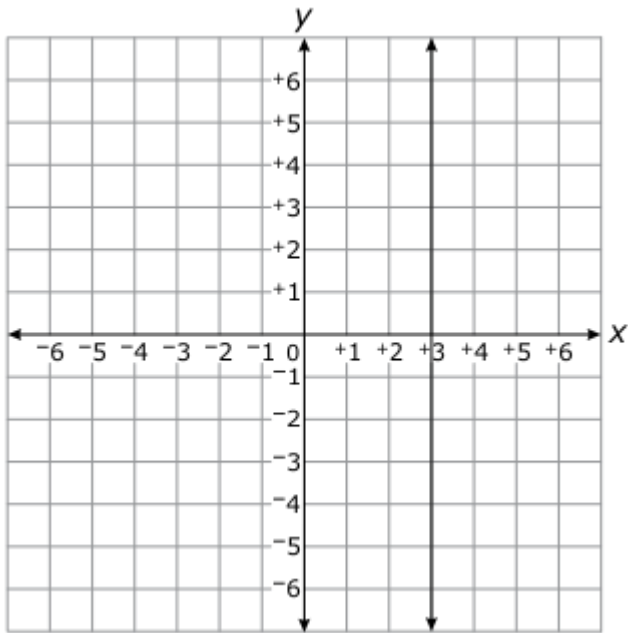


D.

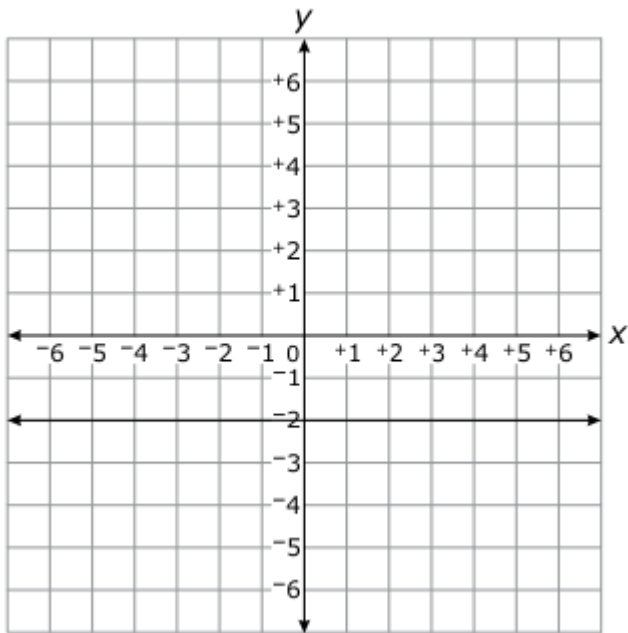


44. Which graph is a function?

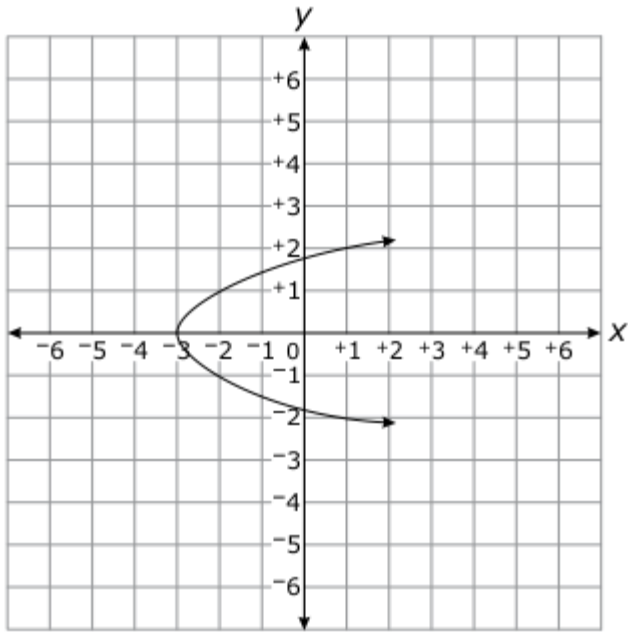
A.



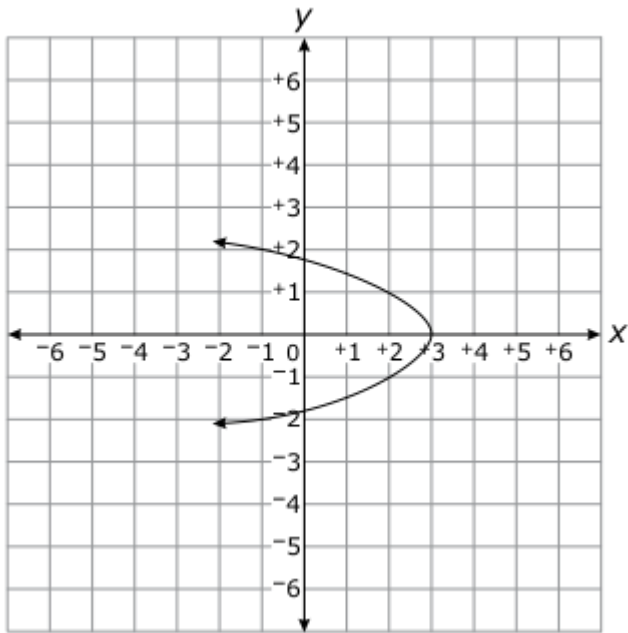
B.



C.



D.



45. Which equation is **not** a linear function?

A. $y = \frac{1}{2}x + 3$

B. $3x + 2y = 7$

C. $y - x = 8$

D. $y = |x| + 1$

46. A set of data is shown below.

$$\{(3, 5), (5, 8), (6, 9), (x, 11)\}$$

Which

x

-value would make the set of data

not

a function?

A. 11

B. 9

C. 8

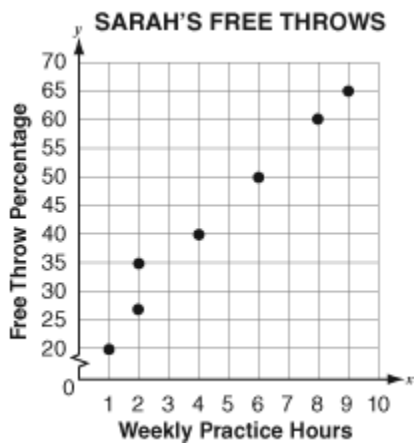
D. 3

47. Sarah has been keeping track of how many hours she practices basketball each week and thinks that the percentage of free throws she makes during practice improves the more she practices. To check this, she makes a graph comparing the number of hours she practices each week with the percentage of free throws she makes each week. Based on what she learned in her Algebra class, she realizes that her graph represents a function. Which of these could be Sarah's graph?

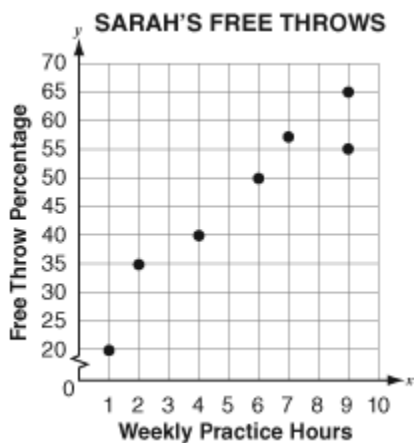
A.



B.



C.



D.



48. Which sets of ordered pairs below describe a function?

I. $\{(2, 3), (2, 4)\}$

II. $\{(0, 2), (0, 3)\}$

III. $\{(3, 0.3), (-3, 0.3)\}$

IV. $\{(-2, 2), (2, -2)\}$

A. I and II

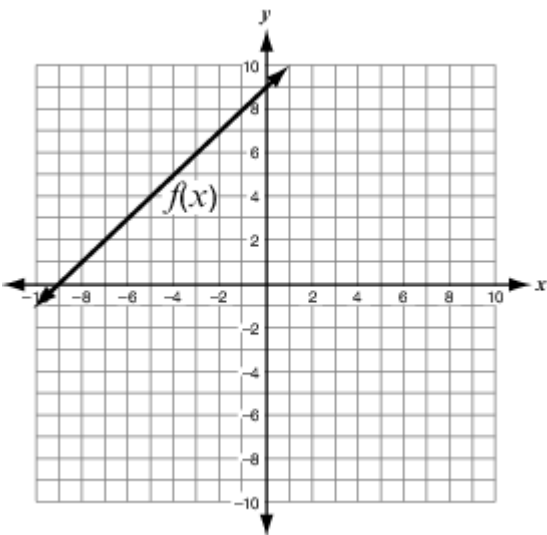
B. II and III

C. III and IV

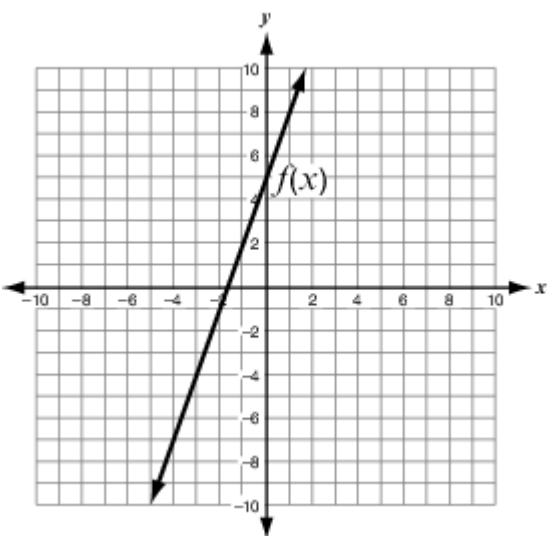
D. IV and I

49. Which function would also include the ordered pairs $(2, 11)$, $(3, 14)$, $(4, 17)$, and $(5, 20)$?

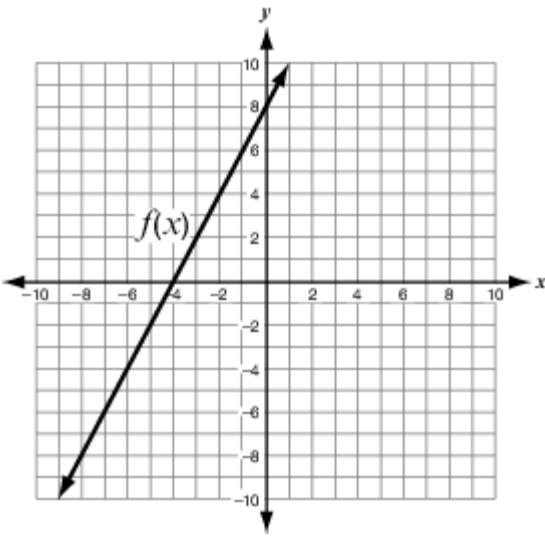
A.



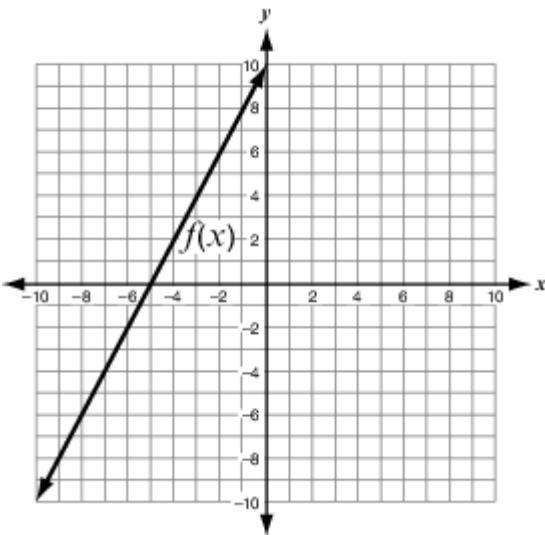
B.



C.



D.



50. Which of the following relations is **not** a function?

A. $y = \frac{4}{1+x}$

B. $y = -2.7$

C. $y = \begin{cases} x-1, & x \leq 0 \\ x+1, & x \geq 0 \end{cases}$

D. $y = \sqrt{x-3}$

51. Which of these relations is NOT a function?

A. $R = \{(0, 0), (2, 6), (-4, -12), (-5, -15)\}$

B. $R = \{(-2, 2), (2, -2), (-4, 4), (4, -4)\}$

C. $R = \{(4, 5), (4, 8), (5, 10), (6, 12)\}$

D. $R = \{(2, 3), (4, 3), (6, 3), (5, 3)\}$