1. Which mapping is a function?

A

C

B

D
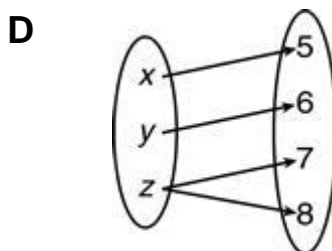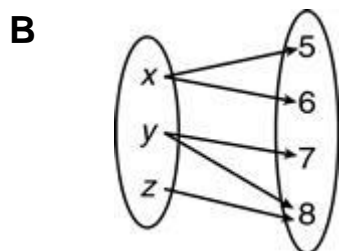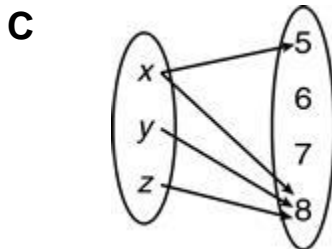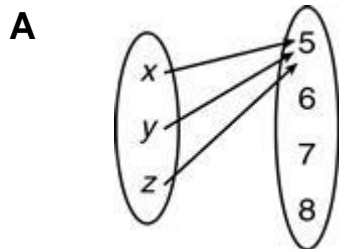
2. The table shows values of *x* and *y*.

x	Y
–4	0
–2	–2
0	–4
2	–2
4	0

Which statement best describes the relationship between the *x*-values and *y*-values in the table?

A   The relationship is a function because all of the *y*-values are integers.
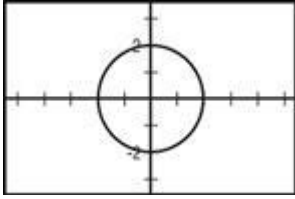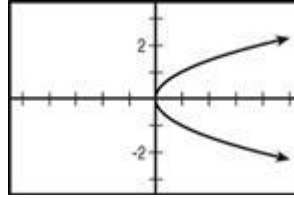
B   The relationship is a function because no two *x*-values are the same.

C   The relationship is not a function because all of the *x*-values are opposites.

D   The relationship is not a function because two of the *y*-values are the same.
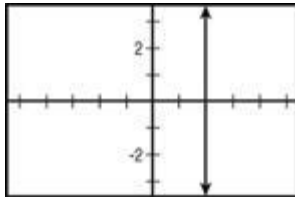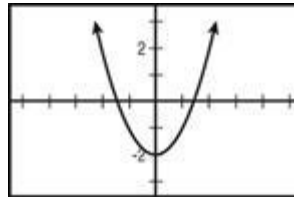
3. Which graph represents a function?

A

C

B

D

4. In which table is *y* a function of *x*?

A

x	y
−2	−2
−1	−1
0	0
1	1
2	2

B

x	y
−2	−2
−1	−1
−2	0
−1	1
−2	2

C

x	y
2	−2
−1	−1
0	0
1	1
2	2

D

x	y
1	−9
0	8
0	−7
−1	6
2	−5

5. Which relation is a function?

A = {(11, −21), (22, 11), (43, 35), (64, −21)}
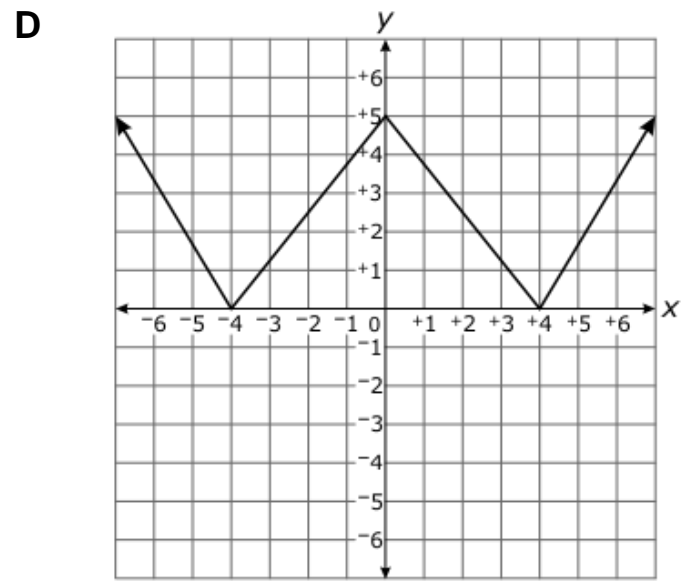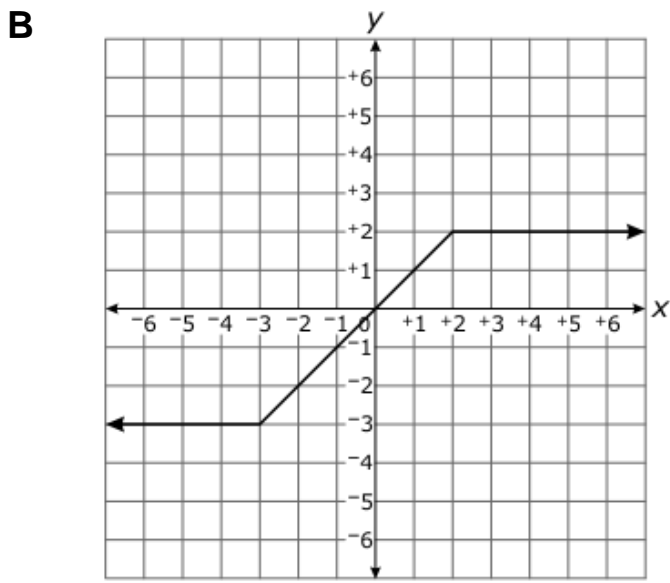
B = {(31, 55), (45, 36), (31, 11), (54, 14)}

A   A

B   B

C   both A and B

D   neither A nor B

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

A

C

B

D
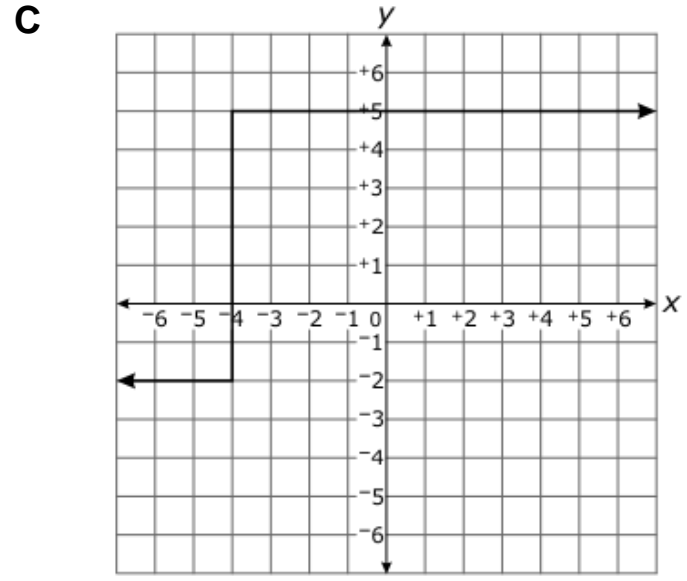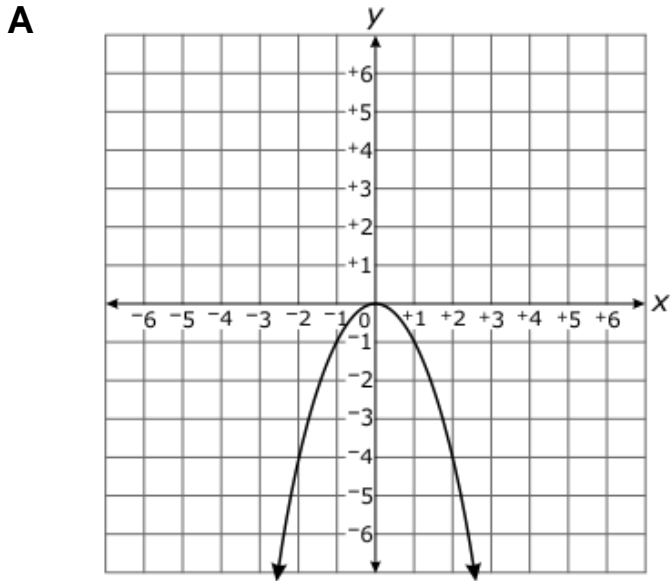
7. In which table is *y* a function of *x*?

A

x	y
–3	4
–1	7
1	10
–3	13

B

x	y
–2	3
0	4
2	3
4	6

C

x	y
–4	–8
–1	–10
–6	–12
–4	–14

D

x	y
2	–5
2	–3
2	2
2	6

8. Which set of ordered pairs represents a function?

A   {(3, 2), (4, 4), (6, 3), (4, 5)}

B   {(4, –3), (4, –1), (4, 3), (4, 6)}

C   {(–4, 4), (–2, 4), (1, 4), (5, 4)}

D   {(–3, –3), (–2, –4), (–2, –1), (–1, –5)}

9. The prices for different lengths of ribbon sold at a fabric store are shown in the table.

Ribbon Prices

Length (inches)	Price
6	$0.59
12	$1.09
18	$1.59
24	$2.09
30	$2.49

Which statement best justifies whether or not the relationship between the length and price represents a function?

A   This relationship does not represent a function because it relates inches and dollars.

B   This relationship represents a function because no length of ribbon has more than one price.

C   This relationship represents a function because the price per inch decreases as the length of ribbon increases.

D   This relationship does not represent a function because the prices of different lengths of ribbon are all different.

10. In which table is _y_ a function of _x_?

A

x	y
−1	5
2	6
0	3
−1	−2

B

x	y
2	6
2	−1
1	2
0	0

C

x	y
3	−1
−2	4
3	0
2	4

D

x	y
0	3
1	5
−1	2
1	5

11. In which graph is _y_ a function of _x_?

A

C

B

D
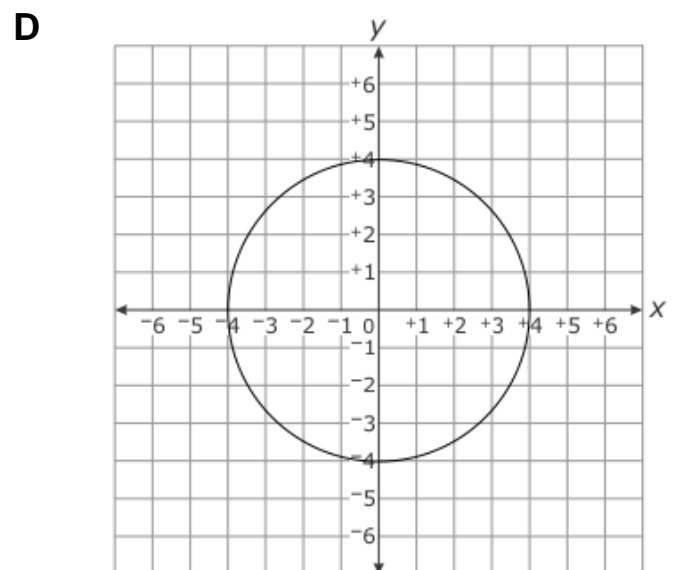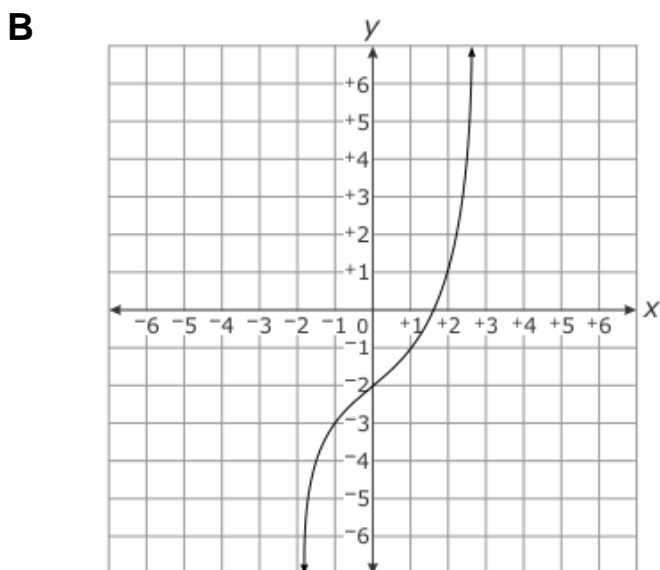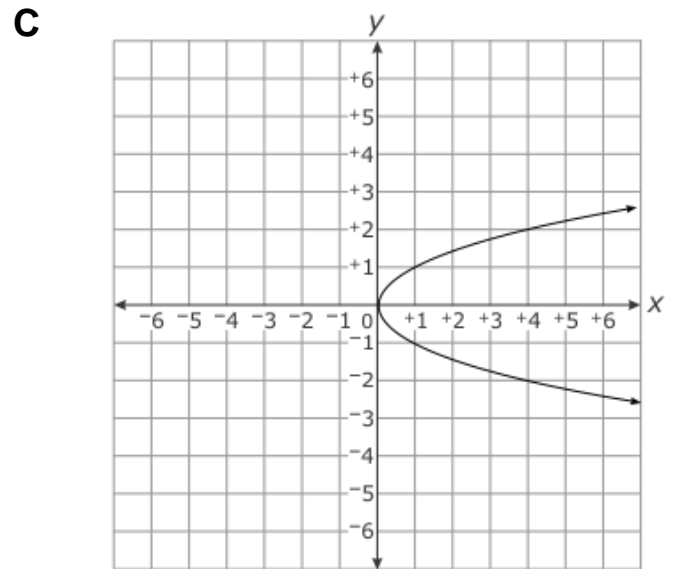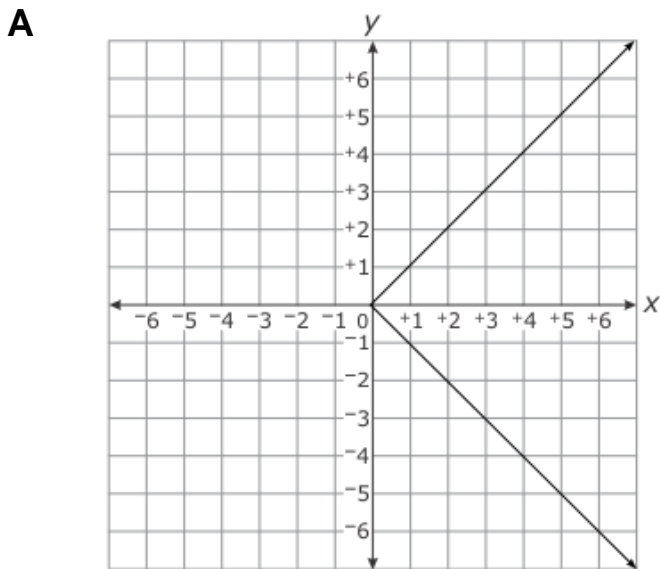
12. Which of these relations represents a function?

A {(1, 2), (3, 4), (5, 4)} **C** {(1, 2), (1, 4), (1, 5)}

B {(1, 2), (3, 4), (1, 5)} **D** {(1, 2), (0, 0), (0, 3)}

13. In which choice is *y* a function of *x*?

A (2, –1), (3, –1), (6, –2)

B (3, –5), (5, –1), (5, –2)

C (2, 2), (2, 4), (4, 2)

D (1, 1), (2, 1), (1, 2)

14. John calculated some ordered pairs for a given relation as shown in the list below.

{(0, 10), (1, 8), (3, –4), (4, –2), (3, –16), (8, 1), (7, 4), (10, 10)}

The relation for which John calculated the ordered pairs in the list represents a function. Which set of ordered pairs shows one in which John definitely **calculated incorrectly**?

A (1, 8) or (8, 1) **C** (3, –4) or (3, –16)

B (4, –2) or (7, 4) **D** (0, 10) or (10, 10)

15. In which table is *y* a function of *x*?

A

x	y
1	1
1	2
1	3
1	4

B

x	y
1	3
2	4
1	5
5	6

C

X	y
–5	7
–2	6
–2	5
0	0

D

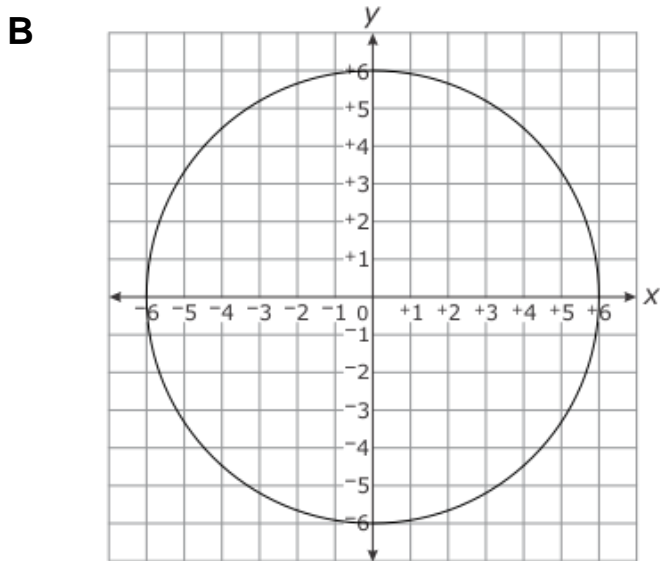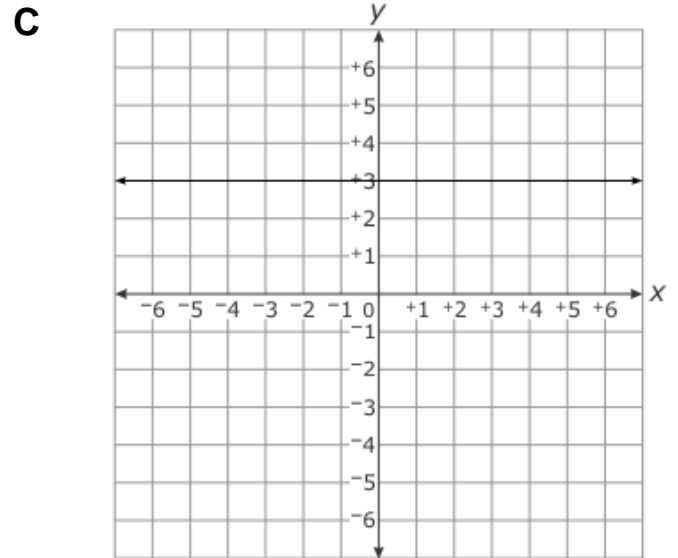| x	y
5	–1
4	–2
3	–3
2	–4

16. In which graph is *y* **not** a function of *x*?
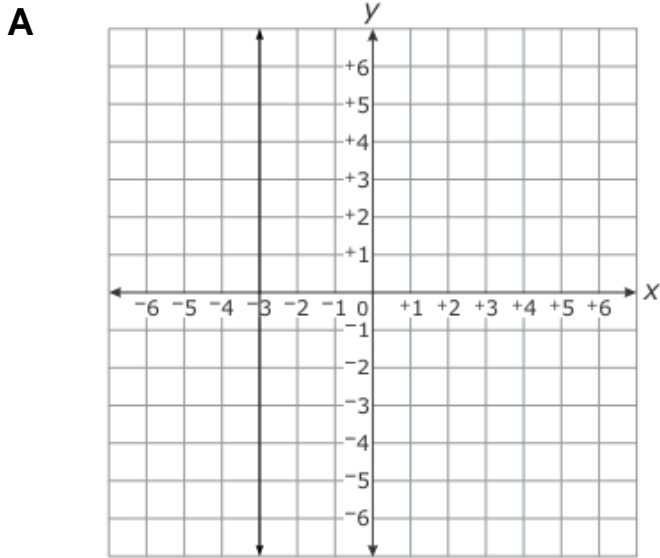
A

C

B

D
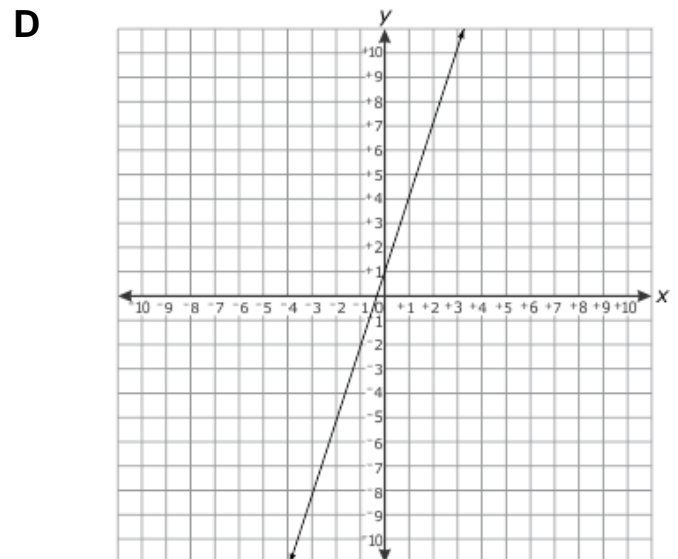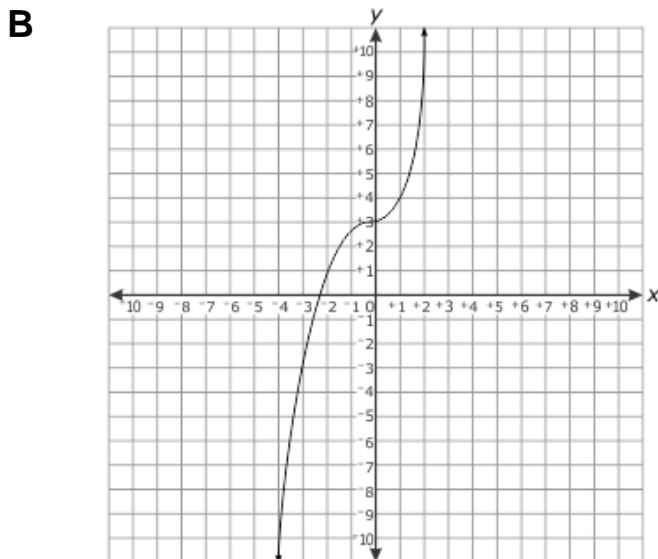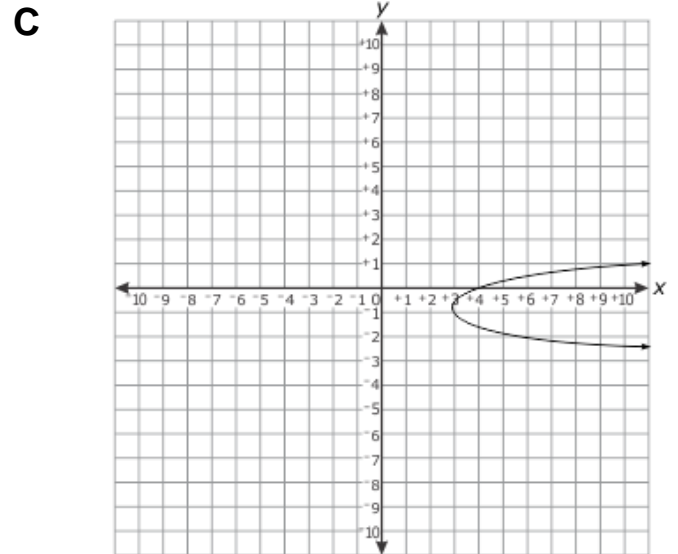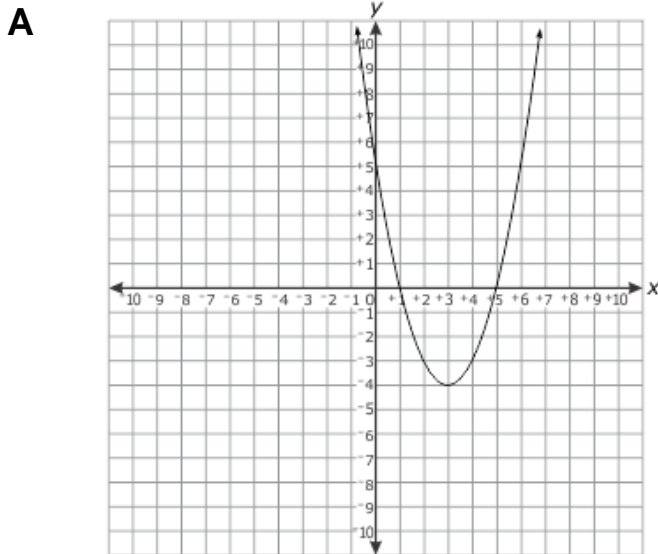
17. Each set of ordered pairs represents a function. Which set of ordered pairs would represent a function if the values of the *x*-coordinates and the values of the *y*-coordinates were reversed?

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

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

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

D   {(1, 2), (2, 3), (3, 4), (4, 5)}

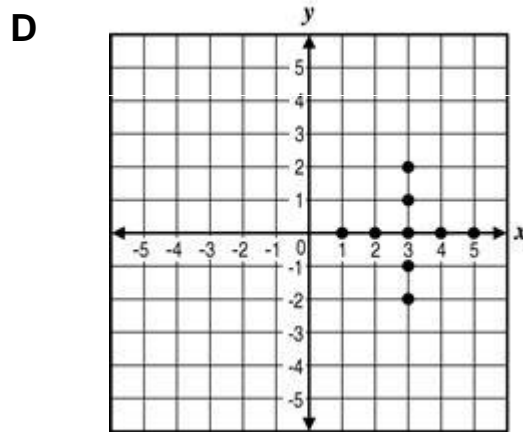**18.** In which graph is *y* a function of *x*?

A

C

B

D
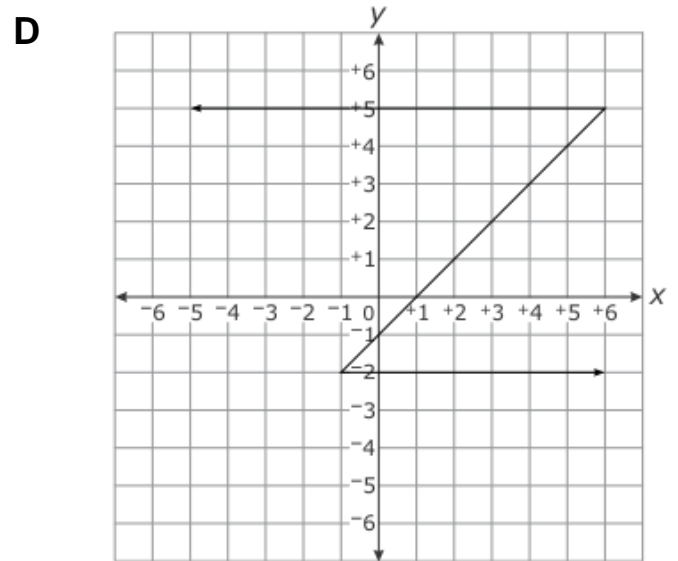
**19.** Which statement **best** describes whether the relation below is a function and correctly explains why or why not?

(0, 0), (5, 10), (6, 12), and (10, 20)

A   No, because one of the ordered pairs is the origin.

B   Yes, because one of the ordered pairs is the origin.

C   No, because each *x*-value is paired with exactly one *y*-value.

D   Yes, because each *x*-value is paired with exactly one *y*-value.

20. Which relation graphed below is a function?

A

C

B

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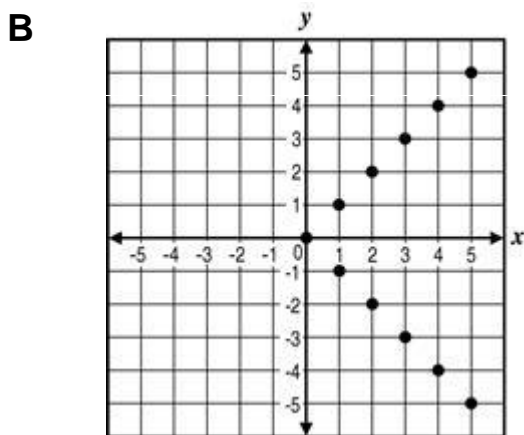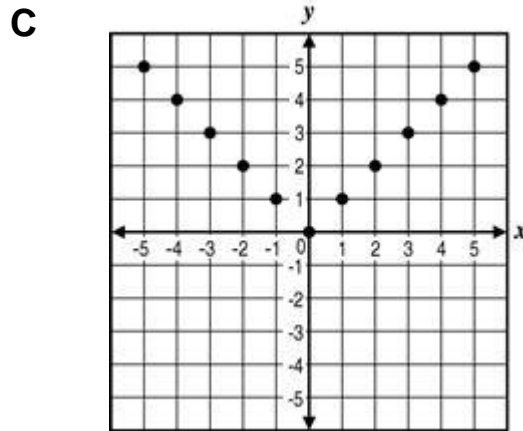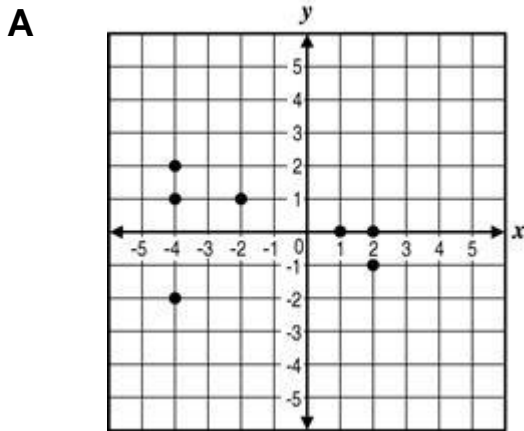
21. In which set of ordered pairs is y a function of x?

A {(1.25, 6), (3, 6), (5.75, 6), (11, 6)}

B {(2, ⁻15), (3, ⁻12), (4, ⁻10), (4, ⁻8)}

C {(6, 1), (3, 8), (3, 9), (6, 12)}

D {(6.5, 10), (6.5, 0), (6.5, 9), (6.5, 12)}

22. Which relation is not a function?

A {(1, 4), (2, 2), (3, 5), (4, 3), (5, 1)}

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

C {(3, –1), (5, 0), (1, 2), (4, 4), (2, 2)}

D {(3, 5), (2, 5), (1, 5), (0, 5), (–1, 5)}

23. The table below shows the amount of time four people spent doing different activities on a Saturday.

	Housework	Yard Work	Sleeping	Television
Tamina	2 hours	1.5 hours	8 hours	2.5 hours
Richard	1.5 hours	3 hours	9 hours	2 hours
Maria	1 hour	4 hours	7.5 hours	4 hours
Salvador	2 hours	3 hours	8.5 hours	2.5 hours

Based on the data, which statement is true?

A   Time spent sleeping is a function of time spent on yard work.

B   Time spent watching television is a function of time spent on housework.

C   Time spent on yard work is a function of time spent on housework.

D   Time spent sleeping is a function of time spent watching television.

24. In which choice is y **not** a function of x?

A   (2, –3), (–2, 3), (3, –2), (–3, 2)

B   (–2, 3), (–3, 4), (–4, 5), (–5, 6)

C   (3, –2), (–3, 2), (3, –3), (2, –2)

D   (1, –1), (–1, 2), (2, –3), (–3, 4)