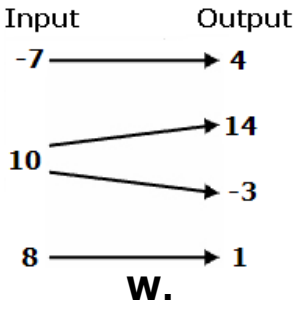
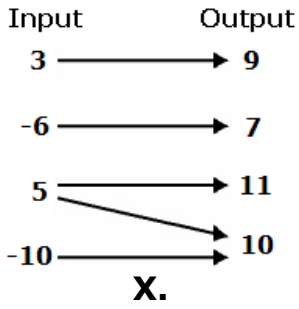
Integrated Math
Functions

Name _____

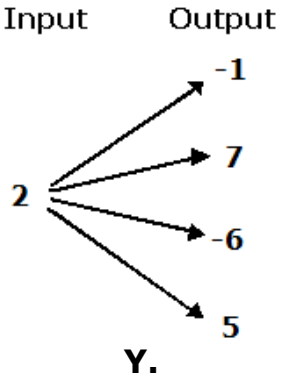
1. Which relation diagram represents a function?



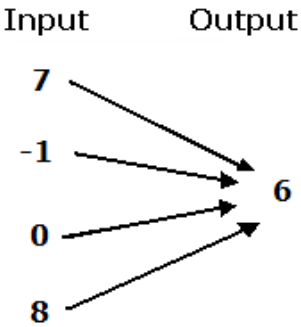
W.



X.



Y.



Z.

- **A.** Y
- **B.** X
- **C.** Z
- **D.** W

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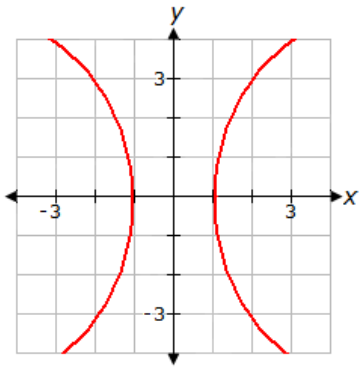
2. Which of the following relations describes a function?

- **A.** { (-3, 9), (-2, 4), (2, 4), (3, 9) }
- **B.** { (2, -2), (0, 0), (2, 2), (3, 3) }
- **C.** { (9, -3), (4, -2), (4, 2), (9, 3) }
- **D.** { (-2, 0), (0, 2), (2, 0), (0, -2) }

3.



Using the vertical line test, determine if the graph above shows a relation, a function, both a relation and a function, or neither a relation nor a function.

- **A.** neither a relation nor a function
- **B.** function only
- **C.** relation only
- **D.** both a relation and a function

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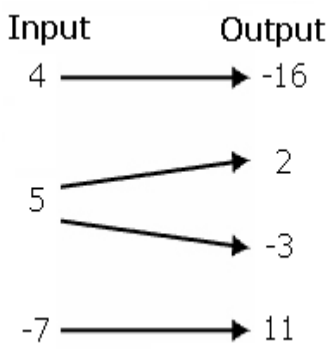
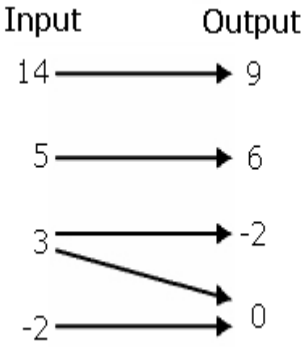
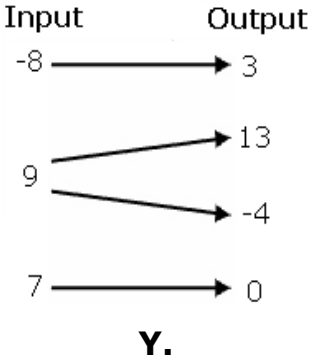
4. Which relation diagram represents a function?



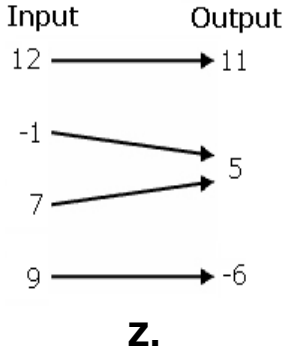
W.



X.



Y.



Z.

- **A.** Y
- **B.** Z
- **C.** W
- **D.** X

5. Which of these t-tables represents a function?

W.

x	f(x)
0	0
1	2
4	4
9	6

X.

x	f(x)
0	0
1	2
4	4
1	-2

Y.

x	f(x)
1	-1
-1	0
1	1
3	2

Z.

x	f(x)
2	-1
0	0
2	1
8	2

- **A.** X
- **B.** Y
- **C.** Z
- **D.** W

6. Which of the following relations describes a function?

- **A.** { (-3, 3), (-2, -2), (-2, 2), (0, 0) }
- **B.** { (0, 0), (2, -2), (2, 2), (3, 3) }
- **C.** { (-2, 0), (0, 2), (2, 0), (0, -2) }
- **D.** { (-3, 3), (-2, 2), (2, 2), (3, 3) }

7. Which of these t-tables represents a function?

W.

x	f(x)
-1	-1
0	0
1	1
2	8

X.

x	f(x)
-4	2
-1	-1
0	0
-1	1

Y.

x	f(x)
-4	2
-2	-1
0	0
-2	1

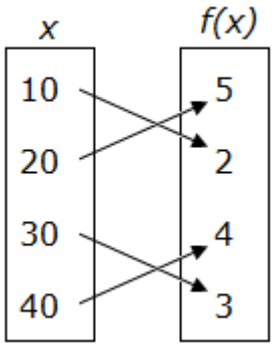
Z.

x	f(x)
-2	0
0	1
2	0
0	-1

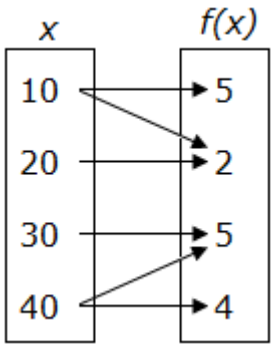
- **A.** X
- **B.** Z
- **C.** W
- **D.** Y

8. Which of these mappings is a function?

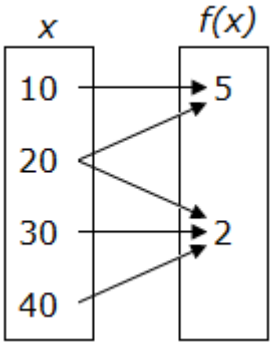
W.



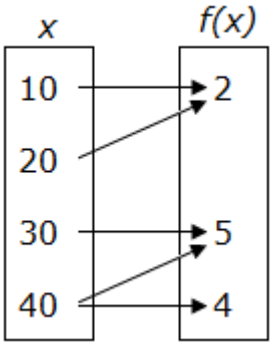
X.



Y.



Z.



- **A.** Z
- **B.** X
- **C.** W
- **D.** Y

9. Which of these t-tables represents a function?

W.

x	f(x)
-1	0
0	1
1	0
0	-1

X.

x	f(x)
0	-1
-1	0
0	1
3	2

Y.

x	f(x)
-1	3
0	1
1	3
2	5

Z.

x	f(x)
3	-1
1	0
3	1
5	2

- **A.** Y
- **B.** X
- **C.** Z
- **D.** W

10. Which of the following relations is a function?

- **A.** (9, 1), (-4, 4), (4, 1), (9, 2)
- **B.** (4, 4), (-4, 6), (4, 3), (-6, 2)
- **C.** (4, 0), (-4, 3), (9, 1), (-4, 5)
- **D.** (4, 4), (-4, 2), (9, 1), (-6, 2)

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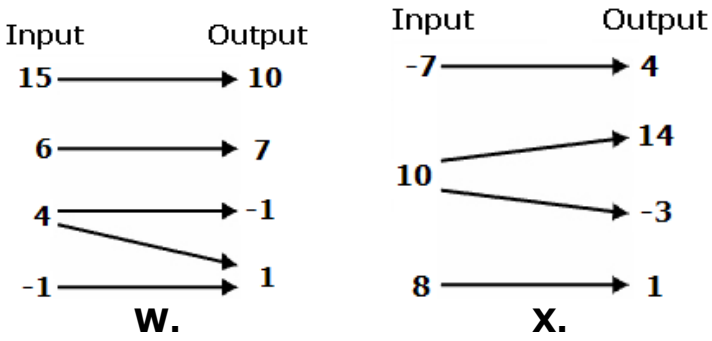
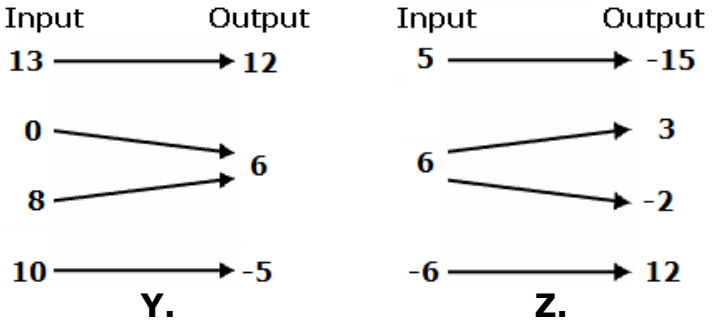
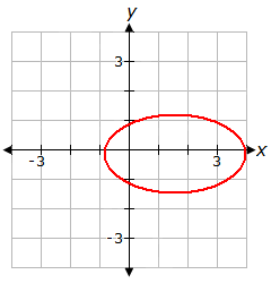
11. Which relation diagram represents a function?





- **A.** Y
- **B.** W
- **C.** X
- **D.** Z

12.



Using the vertical line test, determine if the graph above shows a relation, a function, both a relation and a function, or neither a relation nor a function.

- **A.** neither a relation nor a function
- **B.** both a relation and a function
- **C.** relation only
- **D.** function only

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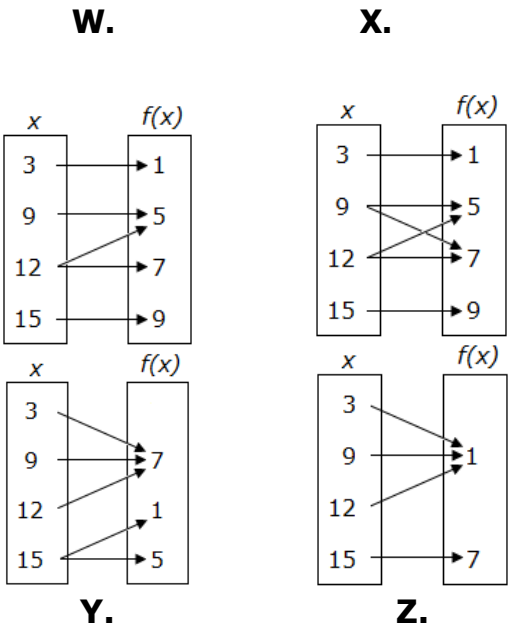
13. Which of these mappings is a function?



- **A.** X
- **B.** Y
- **C.** Z
- **D.** W

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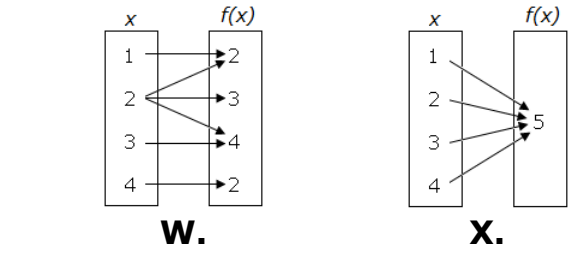
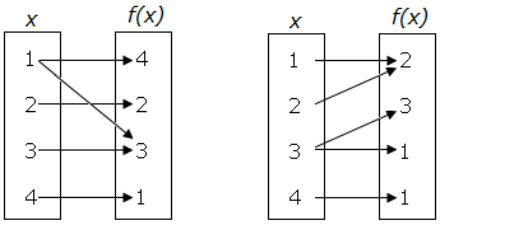
14. Which of these mappings is a function?



W. **X.**



Y. **Z.**

- **A.** Z
- **B.** W
- **C.** X
- **D.** Y

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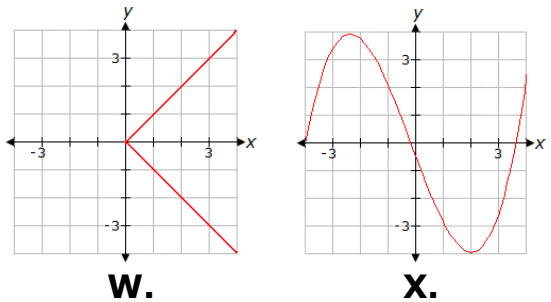
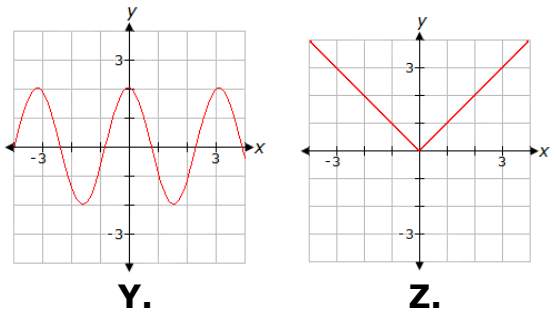
15. Which of the following graphs is not a function?



W. **X.**



Y. **Z.**

- **A.** Z
- **B.** X
- **C.** Y
- **D.** W

16. Which of the following relations is NOT a function?

- **A.** (6, 4), (-1, 2), (2, 1), (-6, 2)
- **B.** (-1, 4), (2, 2), (6, 1), (-6, 5)
- **C.** (2, 4), (-1, 2), (2, 1), (-6, 2)
- **D.** (-6, 4), (2, 3), (-1, 1), (6, 2)

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17. Do the ordered pairs below represent a relation, a function, both a relation and a function, or neither a relation nor a function?

(-3,2) , (0,-1) , (7,-8) , (8,-9)

- **A.** both a relation and a function
- **B.** function only
- **C.** relation only
- **D.** neither a relation nor a function

---

18. Which of the following relations is a function?

- **A.** (0, 4), (-3, 2), (8, 1), (-8, 2)
- **B.** (0, 4), (-3, 6), (0, 3), (-8, 2)
- **C.** (0, 0), (-3, 3), (8, 1), (-3, 5)
- **D.** (8, 1), (-3, 4), (0, 1), (8, 2)

---

19. Which of these t-tables represents a function?

x	f(x)
-2	0
0	2
2	0
1	1.7

W.

x	f(x)
5	-1
3	0
5	1
7	2

X.

x	f(x)
-2	0
0	2
2	0
0	-2

Y.

x	f(x)
2	-2
0	0
2	2
8	4

Z.

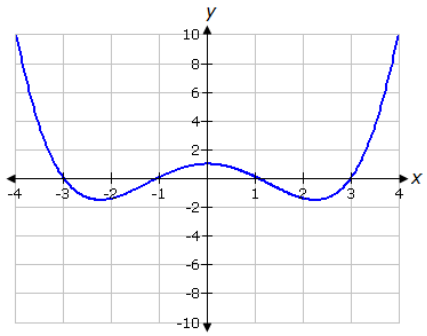
- **A.** W
- **B.** X
- **C.** Z
- **D.** Y

---

20. Which of the following relations describes a function?

- **A.** { (1, 1), (1, 2), (2, 1), (2, 2) }
- **B.** { (1, -1), (1, 1), (2, -1), (2, 1) }
- **C.** { (0, 0), (0, 1), (1, 0), (1, 1) }
- **D.** { (-1, -2), (-2, -1), (1, 2), (2, 1) }

21.



Does the graph above show a relation, a function, both a relation and a function, or neither a relation nor a function?

- **A.** function only
- **B.** neither a relation nor a function
- **C.** both a relation and a function
- **D.** relation only

---

22. Do the ordered pairs below represent a relation, a function, both a relation and a function, or neither a relation nor a function?

(-5,2) , (3,-6) , (6,-9) , (8,-11)

- **A.** relation only
- **B.** both a relation and a function
- **C.** neither a relation nor a function
- **D.** function only

---

23. Which of the following tables represents a function?

- **A.**

x	-13	-9	-1	1
y	25	23	31	25

- **B.**

x	-13	-9	-1	-9
y	25	23	25	24

- **C.**

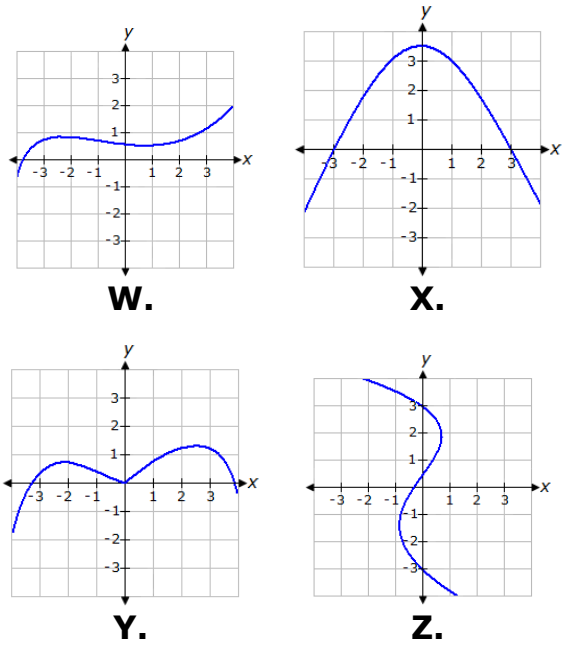
x	-13	-9	-13	1
y	25	25	31	24

- **D.**

x	-13	-9	-1	-1
y	25	23	25	24

---

24. Which of the following graphs is not a function?



- **A.** Y and Z
- **B.** W and X
- **C.** X and Y
- **D.** Z

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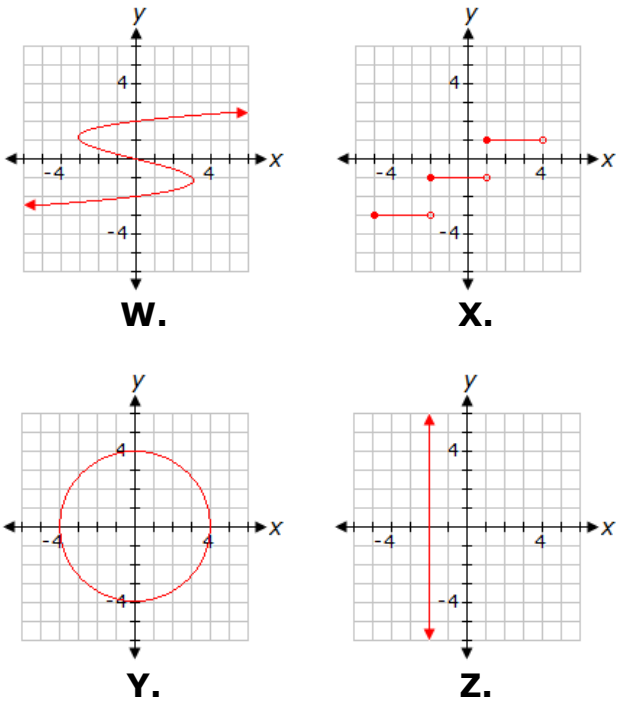
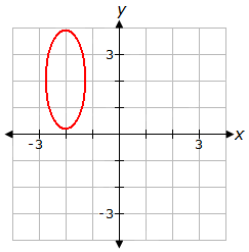
25. Which of these graphs represents a function?



- **A.** Y
- **B.** Z
- **C.** X
- **D.** W

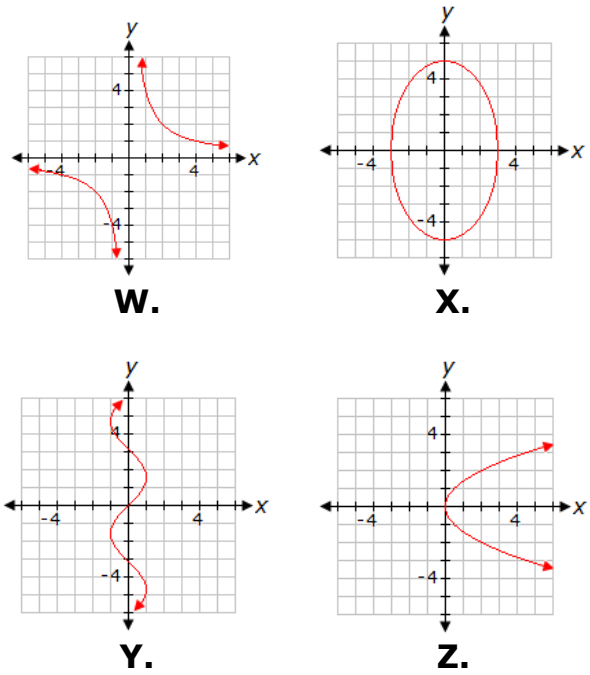
26.



Does the graph above show a relation, a function, both a relation and a function, or neither a relation nor a function?

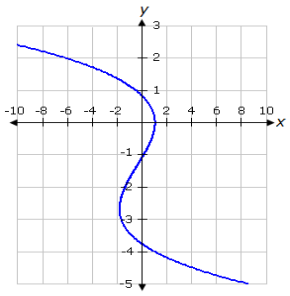
- **A.** function only
- **B.** both a relation and a function
- **C.** neither a relation nor a function
- **D.** relation only

27.
Which of these graphs represents a function?



- **A.** Z
- **B.** Y
- **C.** X
- **D.** W

28.



Does the graph above show a relation, a function, both a relation and a function, or neither a relation nor a function?

- **A.** both a relation and a function
- **B.** neither a relation nor a function
- **C.** relation only
- **D.** function only

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31. Which of these t-tables represents a function?

W. **X.** **Y.** **Z.**

- **A.** Y
- **B.** Z
- **C.** W
- **D.** X

32.

Using the vertical line test, determine if the graph above shows a relation, a function, both a relation and a function, or neither a relation nor a function.

- **A.** neither a relation nor a function
- **B.** function only
- **C.** relation only
- **D.** both a relation and a function

---

33. Which of these graphs represents a function?

W. **X.**

Y. **Z.**

- **A.** Z
- **B.** X
- **C.** Y
- **D.** W

---

34. Which of the following tables represents a function?

- **A.**

x	-10	-6	-2	-2
y	19	17	19	18

- **B.**

x	-10	-6	-2	-6
y	19	17	19	18

- **C.**

x	-10	-6	-2	4
y	19	17	25	19

- **D.**

x	-10	-6	-10	4
y	19	19	25	18

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35. Which of the following relations describes a function?

- **A.** { (2, 2), (3, 2), (4, 2), (5, 2) }
- **B.** { (-2, 0), (0, -2), (0, 2), (2, 0) }
- **C.** { (0, 0), (2, -2), (2, 2), (3, 3) }
- **D.** { (2, 3), (2, 4), (2, 5), (2, 6) }

36.

Determine whether this picture is an example of a function, relation, function and relation, or neither relation nor function.

- **A.** neither function nor relation
- **B.** relation only
- **C.** function and relation
- **D.** function only

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37. Which of these graphs represents a function?

W. **X.**

Y.

Z.

- **A.** X
- **B.** W
- **C.** Z
- **D.** Y

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38. Which of these mappings is a function?

W.

X.

Y.

Z.

- **A.** X
- **B.** Z
- **C.** Y
- **D.** W

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39. Which of the following relations describes a function?

- **A.** { (0, 2), (1, 3), (2, 0), (2, 4) }
- **B.** { (0, 2), (1, 3), (1, 1), (4, 4) }
- **C.** { (-4, 4), (-1, 1), (-1, 3), (0, 2) }
- **D.** { (0, 2), (1, 3), (4, 4), (9, 5) }

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40. Which of these mappings is a function?

W.

X.

Y.

Z.

- **A.** Y
- **B.** X
- **C.** W
- **D.** Z