

NAME: _____

P.I. A.G.3: Determine whether a relation is a function, by examining ordered pairs

P.I. A2.A.38: Determine when a relation is a function

1. Which of the following is a function?

[A] $\{(2, 5), (5, 2), (0, 0)\}$ [B] $\{2, 5, -9, 0\}$

[C] $\{(2, 5), (-9, 0), (-9, 2), (0, -9)\}$

[D] $\{(2, 5), (5, -9), (2, 0)\}$

2. Which of the following is a function?

[A] $\{-8, -3, -5, 7\}$

[B] $\{(-8, -3), (-3, -5), (-8, 7)\}$

[C] $\{(-8, -3), (-5, 7), (-5, -8), (7, -5)\}$

[D] $\{(-8, -3), (-3, -8), (7, 7)\}$

3. Which of the following is a function?

[A] $\{4, -6, 0, 5\}$

[B] $\{(4, -6), (0, 5), (0, 4), (5, 0)\}$

[C] $\{(4, -6), (-6, 4), (5, 5)\}$

[D] $\{(4, -6), (-6, 0), (4, 5)\}$

4. Is the relation $\{(5, -4), (5, 6), (6, 3), (6, -2)\}$ a function? Explain.

5. Is the relation $\{(-1, 3), (5, 3), (2, 3), (-3, 2)\}$ a function? Explain.

6. Is the relation $\{(1, 6), (5, 6), (4, 6), (2, 4)\}$ a function? Explain.

7. Determine which relation is a function.

[A]

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

[B]

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

[C]

x	3	3	2	0
y	1	4	5	-3

[D]

x	0	0	0	0
y	0	1	2	3

8. Determine which relation is a function.

[A]

x	1	2	3	4
y	3	6	9	12

[B]

x	3	2	5	3
y	4	4	1	5

[C]

x	1	1	1	1
y	4	3	2	1

[D]

x	3	3	1	1
y	4	3	2	5

9. Determine if the relation is a function.

x	0	0	0	0
y	0	1	2	3

10. Determine if the relation is a function.

x	1	2	3	4
y	3	6	9	12

[1] A

[2] D

[3] C

[4] No, a domain value corresponds to two range values.

[5] Yes, no domain value corresponds to more than one range value.

[6] Yes, no domain value corresponds to more than one range value.

[7] B

[8] A

[9] no

[10] yes