

NAME: _____

1. 010211b, P.I. A2.A.38

Which relation is a function?

- [A] $y = \sin x$ [B] $x = 4$
 [C] $x^2 + y^2 = 16$ [D] $x = y^2 + 1$

2. 060805b, P.I. A2.A.38

Which relation is a function?

- [A] $2x^2 + 6y^2 = 1$ [B] $x^2 + y^2 = 16$
 [C] $y = x^2 + 3x - 4$ [D] $y^2 = x^2 + 3x - 4$

3. 060213b, P.I. A2.A.38

Which equation represents a function?

- [A] $y = x^2 - 3x - 4$ [B] $x = y^2 - 6x + 8$
 [C] $x^2 + y^2 = 4$ [D] $4y^2 = 36 - 9x^2$

4. 060511b, P.I. A2.A.38

Which relation is a function?

- [A] $x = 7$ [B] $xy = 7$
 [C] $x^2 + y^2 = 7$ [D] $x^2 - y^2 = 7$

5. 080101b, P.I. A2.A.38

Which relation is *not* a function?

- [A] $y = x^2 - 4x + 3$ [B] $y = 2x + 4$
 [C] $x = y^2 + 2x - 3$ [D] $x = 3y - 2$

6. 080605b, P.I. A2.A.38

Which equation does *not* represent a function?

- [A] $y = x^2 + 5x$ [B] $x = \pi$
 [C] $y = |x|$ [D] $y = 4$

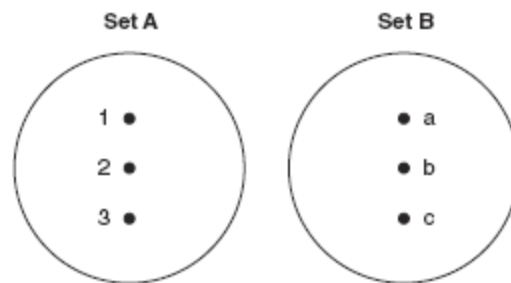
7. 080812b, P.I. A2.A.38

Which equation is *not* a function?

- [A] $y = \sec x$ [B] $x^2 = 16 - y^2$
 [C] $y = \sin x$ [D] $y = 3x^2 - 4$

8. 010622b, P.I. A2.A.37

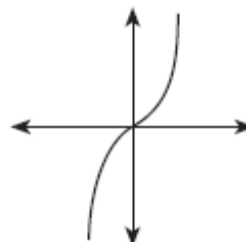
On the accompanying diagram, draw a mapping of a relation from set A to set B that is *not* a function. Explain why the relationship you drew is *not* a function.



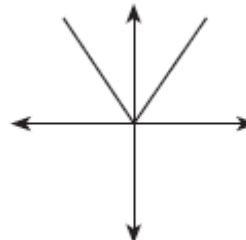
9. 060216b, P.I. A2.A.43

Which diagram represents a one-to-one function?

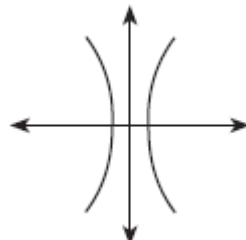
[A]



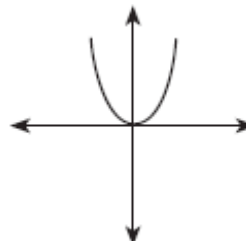
[B]



[C]



[D]



[1] A _____

[2] C _____

[3] A _____

[4] B _____

[5] C _____

[6] B _____

[7] B _____

[2] A mapping is drawn that maps at least one element of set A to more than one element of set B, and an appropriate explanation of the difference between functions and relations is written.

[1] An appropriate mapping is drawn, but no explanation is written.

or [1] An incorrect mapping is drawn, but an appropriate explanation is written.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[8] incorrect procedure. _____

[9] A _____