

Section 9-1: Sets, Relations, and Functions

1. 080403b, P.I. A.G.3

Which set of ordered pairs is *not* a function?

[A] $\{(0,0), (1,1), (2,2), (3,3)\}$

[B] $\{(1,2), (3,4), (4,5), (5,6)\}$

[C] $\{(4,1), (5,1), (6,1), (7,1)\}$

[D] $\{(3,1), (2,1), (1,2), (3,2)\}$

2. 060715b, P.I. A.G.3

Which set of ordered pairs does *not* represent a function?

[A] $\{(3,-2), (4,-3), (5,-4), (6,-5)\}$

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

[C] $\{(3,-2), (5,-2), (4,-2), (-1,-2)\}$

[D] $\{(3,-2), (-2,3), (4,-1), (-1,4)\}$

3. 060406b, P.I. A2.A.41

If $f(x) = 4x^0 + (4x)^{-1}$, what is the value of $f(4)$?

[A] -12 [B] 0 [C] $1\frac{1}{16}$ [D] $4\frac{1}{16}$

4. 080701b, P.I. A2.A.41

If $f(x) = (x^{-x} - x^0 + 2^x)$, then $f(3)$ is equal to

[A] $8\frac{1}{27}$ [B] -21

[C] $7\frac{1}{27}$ [D] -22

5. 080628a, P.I. A.A.39

Point $(k, -3)$ lies on the line whose equation is $x - 2y = -2$. What is the value of k ?

[A] 6 [B] -8 [C] -6 [D] 8

6. 060721a, P.I. A.A.39

The graph of the equation $2x + 6y = 4$ passes through point $(x, -2)$. What is the value of x ?

[A] 8 [B] 16 [C] -4 [D] 4

[1] D

[2] B

[3] D

[4] C

[5] B

[6] A