Exercises - Relations and Functions

1

What is the domain of the function that contains points at $(-5,2)$, $(-2,1)$, $(0,2)$, and $(4,-3)$?

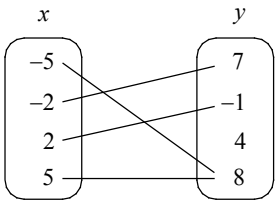
A) $\{-3,\ 1,\ 2\}$

B) $\{-2,\ 1,\ 0\}$

C) $\{-5,\ -2,\ 1,\ 2\}$

D) $\{-5,\ -2,\ 0,\ 4\}$

2



Which of the following relation is a correct representation of the mapping shown above?

A) $\{(-5,7),\ (-2,-1),\ (2,4),\ (5,8)\}$

B) $\{(-5,8),\ (-2,7),\ (2,-1),\ (5,8)\}$

C) $\{(7,-5),\ (-1,-2),\ (4,2),\ (8,5)\}$

D) $\{(8,-5),\ (7,-2),\ (-1,2),\ (8,5)\}$

3

If point $(7,b)$ is in Quadrant I and point $(a,-3)$ is in Quadrant III, in which Quadrant is the point (a,b)?

A) Quadrant I

B) Quadrant II

C) Quadrant III

D) Quadrant IV

4

If $f(x)=-2x+7$, what is $f(\frac{1}{2}x+3)$ equal to?

A) $-x+1$

B) $-x+3$

C) $-x+5$

D) $-x+10$

5

$$g(x)=kx^3+3$$

For the function g defined above, k is a constant and $g(-1)=5$. What is the value of $g(1)$?

A) -3

B) -1

C) 1

D) 3

6

If $f(x+1)=-\frac{1}{2}x+6$, what is the value of $f(-3)$?

7

$$f(x)=x^2-b$$

In the function above, b is a constant.
If $f(-2)=7$, what is the value of $f(b)$?