

FUNCTIONS

RC#2

How to Identify Domain and Range from a Graph:

Domain: Look for "x" values

Range: Look for "y" values

Identify any endpoints

○ Endpoint: use $<$ or $>$

● Endpoint: use \leq or \geq

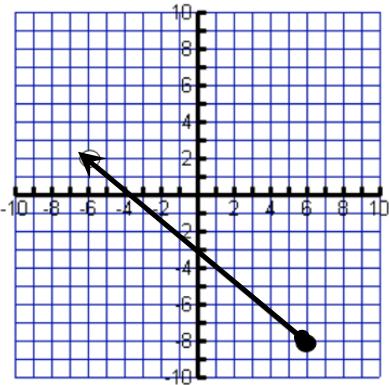
Test-Taking Strategies:

Eliminate wrong variable answer choices.

Eliminate wrong endpoint value answer choices.

Check a point

1.



What are the domain and range of this function?

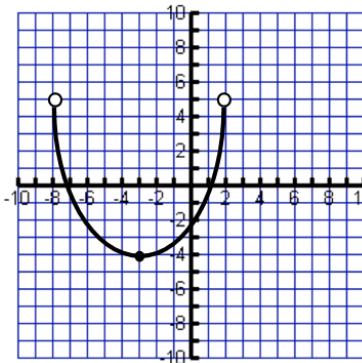
Domain: _____

Range: _____

- A. $x \geq -8$
- B. $x \geq 6$
- C. $x \leq 6$
- D. $x \leq -8$

- F. $y \leq 6$
- G. $y \geq 6$
- H. $y \leq -8$
- J. $y \geq -8$

2.



What are the domain and range of this function?

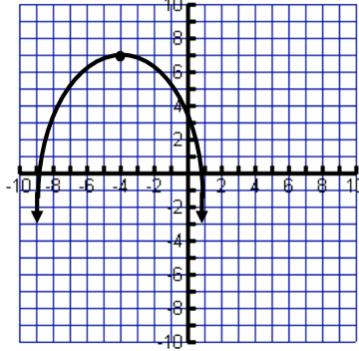
Domain: _____

Range: _____

- A. $-4 \leq x < 5$
- B. $-4 < x \leq 5$
- C. $-8 < x < 2$
- D. $-8 \leq x \leq 2$

- F. $-4 \leq y < 5$
- G. $-4 < y \leq 5$
- H. $-8 < y < 2$
- J. $-8 \leq y \leq 2$

3.



What are the domain and range of this function?

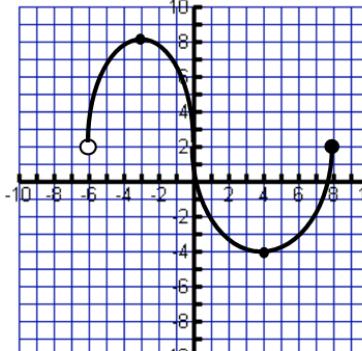
Domain: _____

Range: _____

- A. $-9 \leq x \leq 1$
- B. $x \leq 7$
- C. All Real Numbers
- D. $x < 7$

- F. $-9 \leq y \leq 1$
- G. $y \leq 7$
- H. All Real Numbers
- J. $y < 7$

4.



What are the domain and range of this function?

Domain: _____

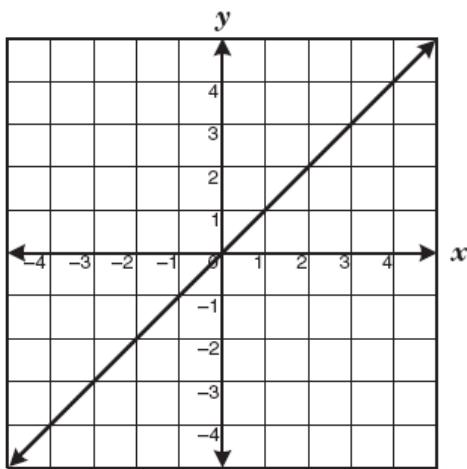
Range: _____

- A. $-6 \leq x < 8$
- B. $-6 < x \leq 8$
- C. $-4 < x < 8$
- D. $-4 \leq x \leq 8$

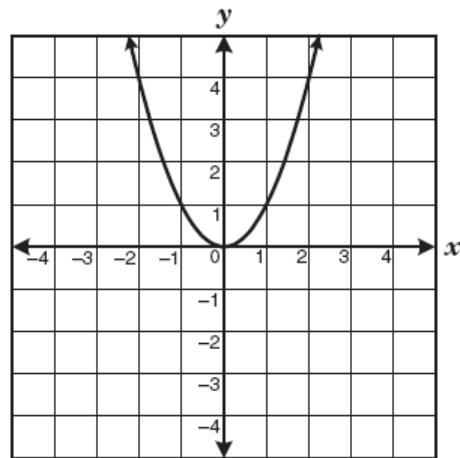
- F. $-6 \leq y < 8$
- G. $-6 < y \leq 8$
- H. $-4 < y < 8$
- J. $-4 \leq y \leq 8$

5. Compare/Contrast the Linear Parent Function and the Quadratic Parent Function.

LINEAR Parent Function



QUADRATIC Parent Function



Equation: _____

$m = \underline{\hspace{2cm}}$ $b = \underline{\hspace{2cm}}$

Domain: _____ Range: _____

6. A rectangle has a length of $2x + 1$ and a width of $5x - 4$. Which expression best describes the area of the rectangle?

F $7x - 3$

G $14x - 6$

H $10x^2 - 3x - 4$

J $10x^2 + 13x - 4$

Equation: _____

$a = \underline{\hspace{2cm}}$ Vertex: _____

Axis of Symmetry: _____

Domain: _____ Range: _____

7. Simplify the expression $6 - 3(5x + 2) - 10x$.

F $-25x$

G $5x + 6$

H $8 - 25x$

J $12 - 25x$