

Domain and Range/Systems

Name _____

Hour _____

Convert the following domains written in algebraic notations into interval notation.

1. $x < 2$
2. All real numbers
3. $x \geq -4$
4. $-1 < x \leq 7$

Convert the following ranges written in interval notations into algebraic notation.

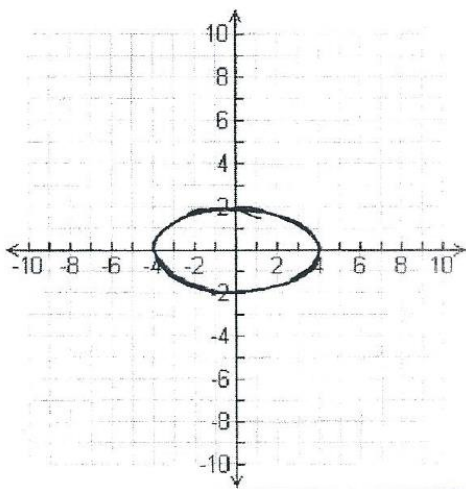
5. $[4, \infty)$
6. $(-\infty, 3)$
7. $(-\infty, \infty)$
8. $[-6, 11)$

Identify the correct domain and range in interval notation for each of the following functions.

Domain Choices: $(-\infty, \infty)$ $(-7, 3]$ $[-4, 4]$ $[-3, 3]$ $x = 4$

Range Choices: $y = 4$ $[-2, 2]$ $[0, \infty)$ $(-\infty, \infty)$ $[-8, 8]$

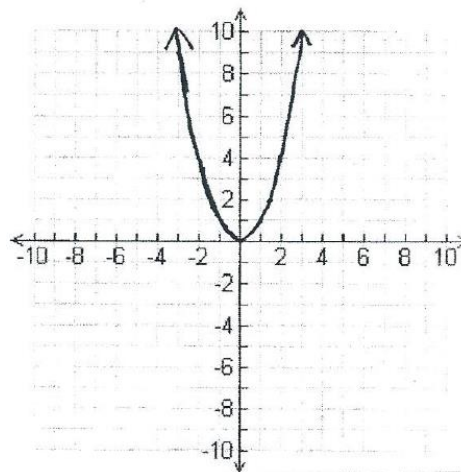
9.



Domain: _____

Range: _____

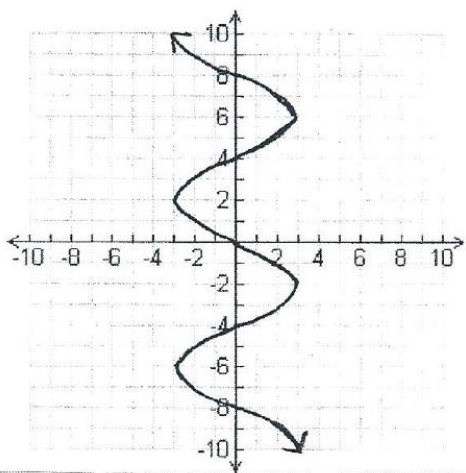
11.



Domain: _____

Range: _____

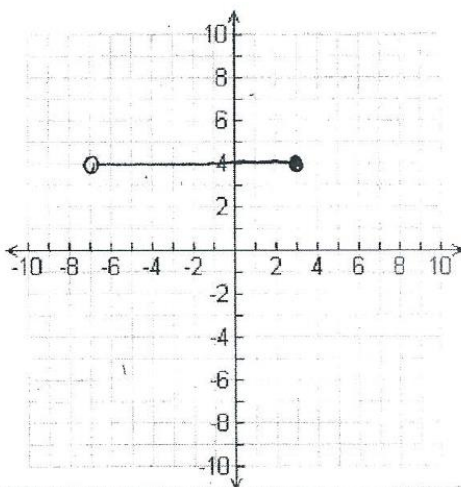
10.



Domain: _____

Range: _____

12.



Domain: _____

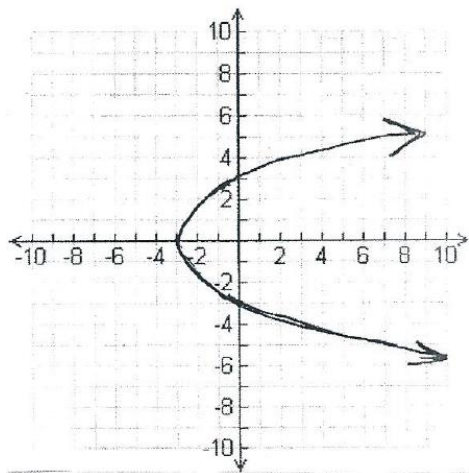
Range: _____

Identify the correct domain and range in algebraic notation for each of the following functions.

Domain Choices: $x \geq -3$ $-3 < y < 1$ \mathbb{R} $x = 4$ $x \geq -4$

Range Choices: $y \leq 3$ \mathbb{R} $-5 < y \leq 4$ $y \geq -1$ $-3 < y < 3$

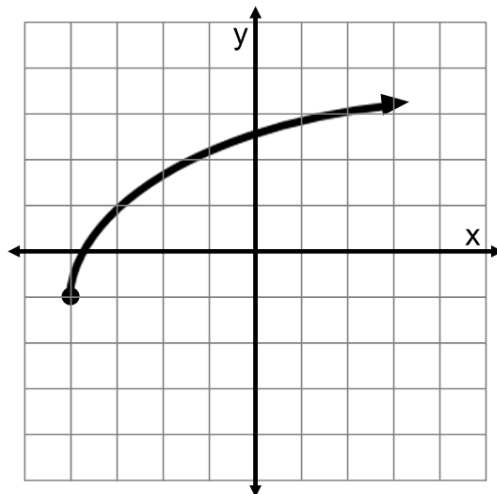
13.



Domain: _____

Range: _____

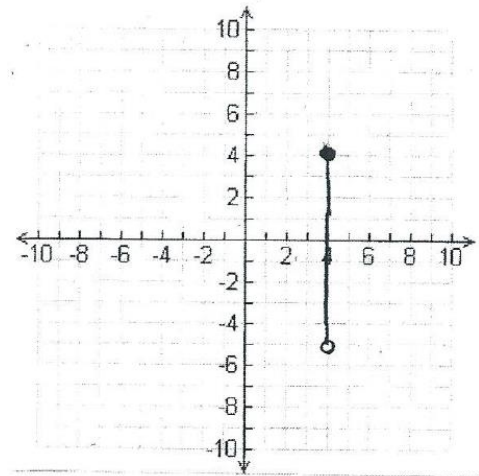
15.



Domain: _____

Range: _____

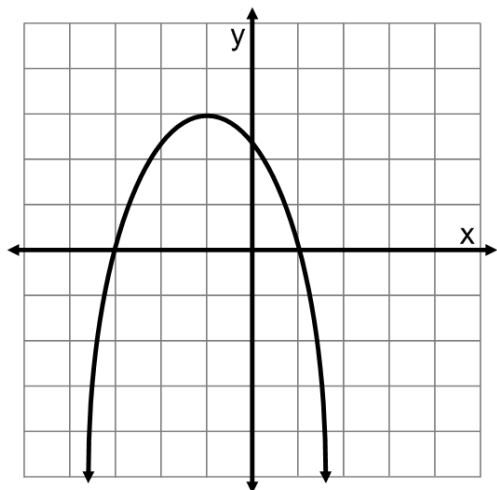
14.



Domain: _____

Range: _____

16.



Domain: _____

Range: _____

Solve each system using the method of your choice.

17.
$$\begin{cases} x + 10y = 4 \\ -4x + 5y = -16 \end{cases}$$

18.
$$\begin{cases} -5x + 4y = -14 \\ x + 5y = -3 \end{cases}$$

19.
$$\begin{cases} y = -2x - 7 \\ 4x - y = -17 \end{cases}$$