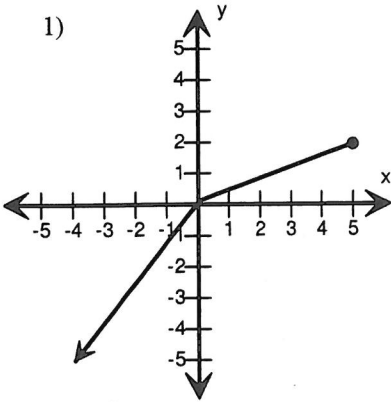
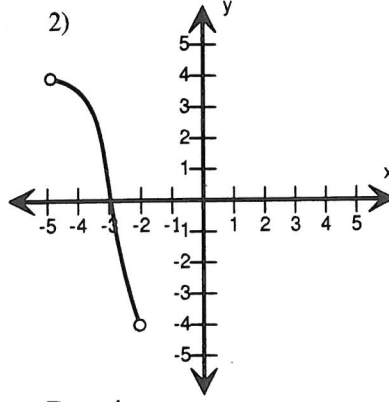


**Domain and Range**

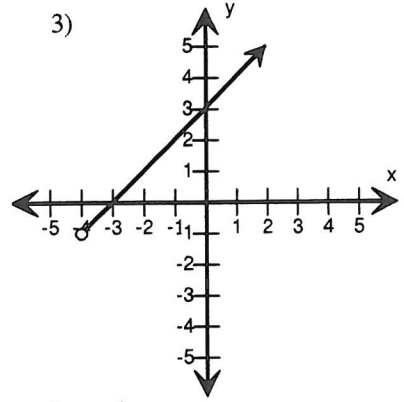
Find the Domain and Range for each graph.



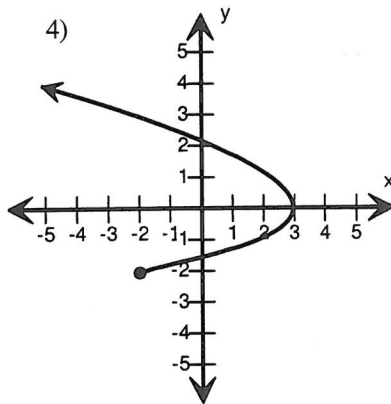
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



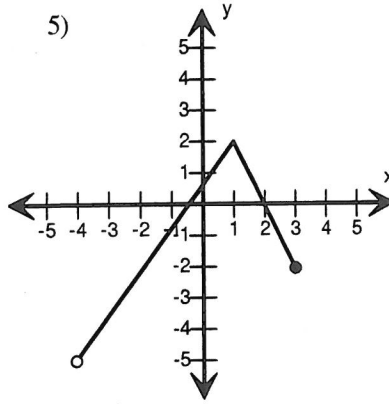
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



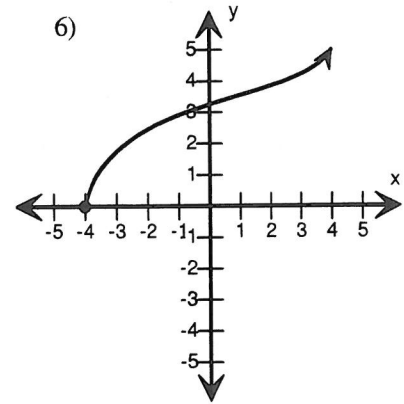
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



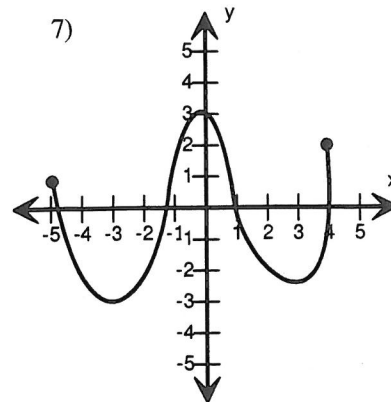
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



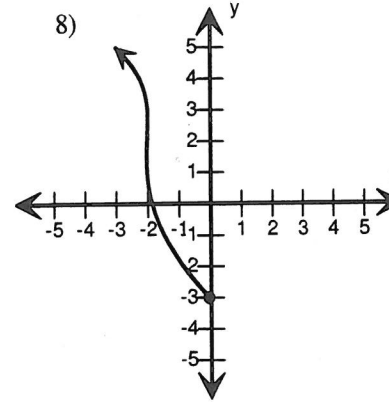
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



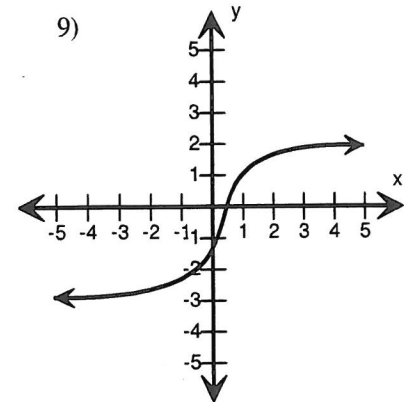
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



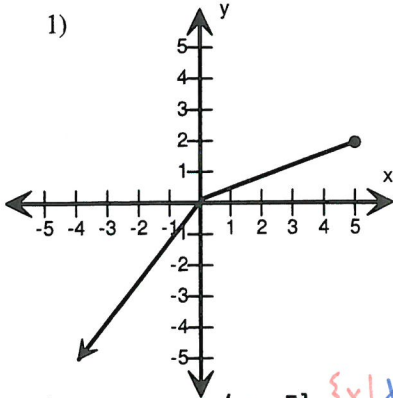
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



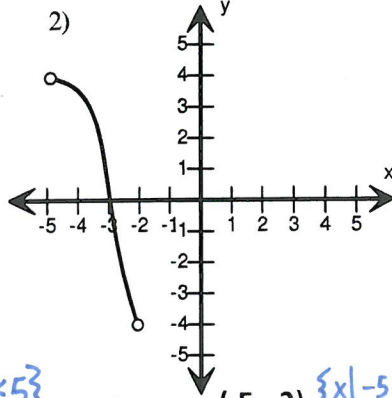
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_

Answer Key

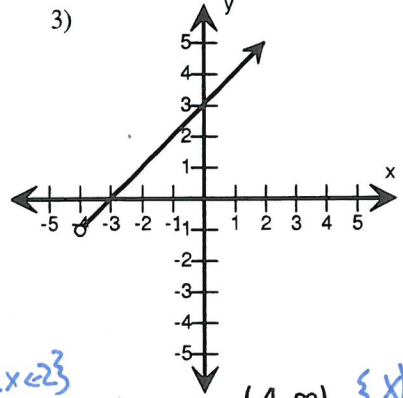
Find the Domain and Range for each graph.



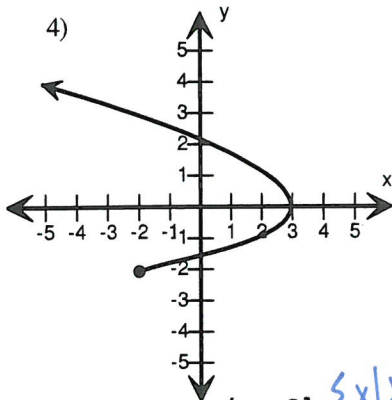
Domain:  $(-\infty, 5]$   $\{x | x \leq 5\}$   
 Range:  $(-\infty, 2]$   $\{y | y \leq 2\}$



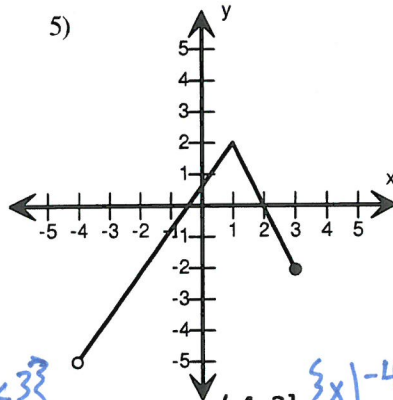
Domain:  $(-5, -2)$   $\{x | -5 < x < -2\}$   
 Range:  $(-4, 4)$   $\{y | -4 < y < 4\}$



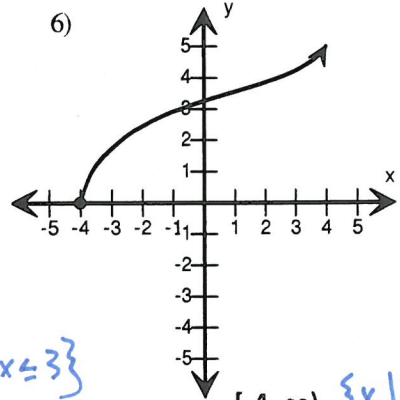
Domain:  $(-4, \infty)$   $\{x | x > -4\}$   
 Range:  $(-1, \infty)$   $\{y | y > -1\}$



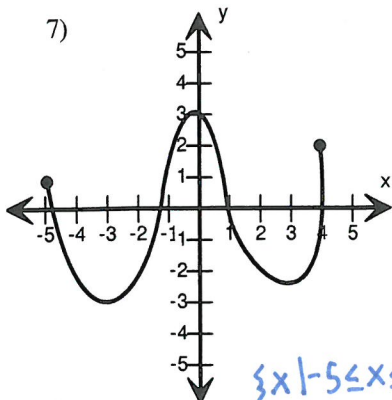
Domain:  $(-\infty, 3]$   $\{x | x \leq 3\}$   
 Range:  $[-2, \infty)$   $\{y | y \geq -2\}$



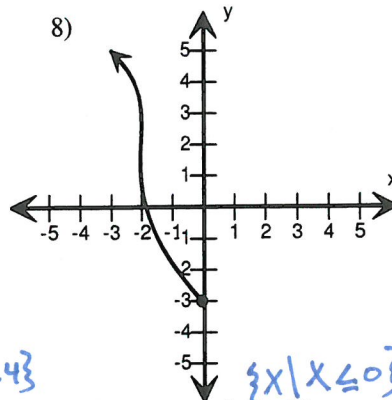
Domain:  $(-4, 3]$   $\{x | -4 < x \leq 3\}$   
 Range:  $(-5, 2]$   $\{y | -5 < y \leq 2\}$



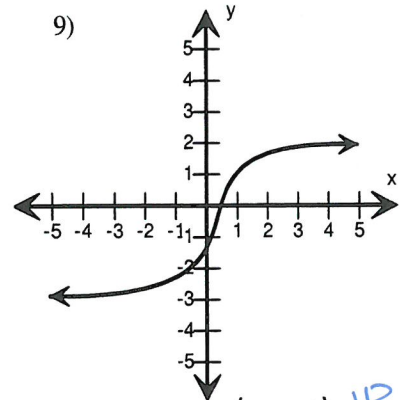
Domain:  $[-4, \infty)$   $\{x | x \geq -4\}$   
 Range:  $[0, \infty)$   $\{y | y \geq 0\}$



Domain:  $[-5, 4]$   $\{x | -5 \leq x \leq 4\}$   
 Range:  $[-3, 3]$   $\{y | -3 \leq y \leq 3\}$



Domain:  $(-\infty, 0]$   $\{x | x \leq 0\}$   
 Range:  $[-3, \infty)$   $\{y | y \geq -3\}$



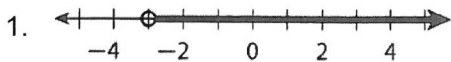
Domain:  $(-\infty, \infty)$   $\mathbb{R}$   
 Range:  $(-\infty, \infty)$   $\mathbb{R}$

**LESSON**  
**1-1**

# Domain, Range, and End Behavior

## Practice and Problem Solving: A/B

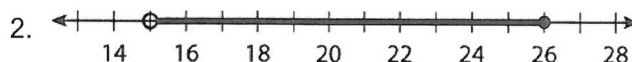
Describe the interval shown using an inequality, set notation, and interval notation.



Inequality: \_\_\_\_\_

Set Notation: \_\_\_\_\_

Interval Notation: \_\_\_\_\_



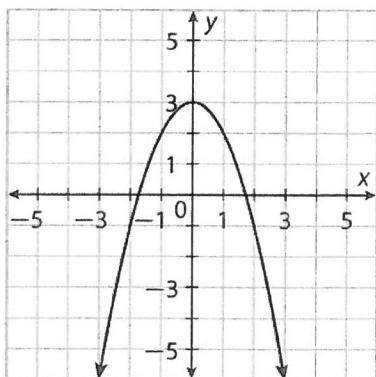
Inequality: \_\_\_\_\_

Set Notation: \_\_\_\_\_

Interval Notation: \_\_\_\_\_

Describe the domain and range of the graph using an inequality, set notation, and interval notation. Then describe its end behavior.

3. Graph of  $f(x) = -x^2 + 3$ :



Domain:

Inequality: \_\_\_\_\_

Set Notation: \_\_\_\_\_

Interval Notation: \_\_\_\_\_

Range:

Inequality: \_\_\_\_\_

Set Notation: \_\_\_\_\_

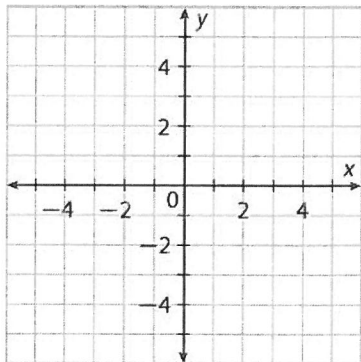
Interval Notation: \_\_\_\_\_

End Behavior:

\_\_\_\_\_

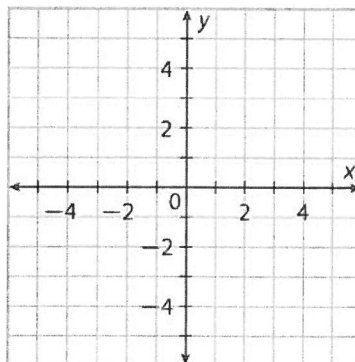
Draw the graph of the function with its given domain. Then determine the range using interval notation.

4.  $g(x) = -3x + 2$  with domain  $(-1, 2]$ :



Range: \_\_\_\_\_

5.  $h(x) = 0.5x - 1$  with domain  $(-\infty, 4)$ :



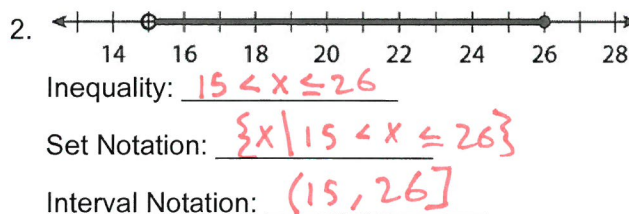
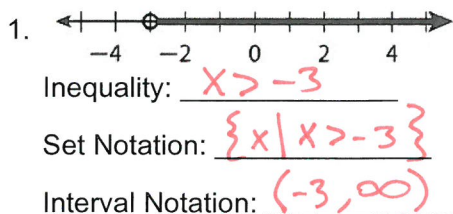
Range: \_\_\_\_\_

**LESSON**  
**1-1**

**Domain, Range, and End Behavior**

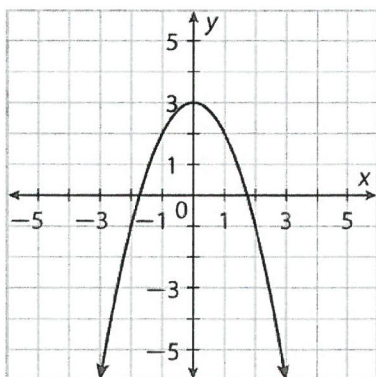
*Practice and Problem Solving: A/B*

Describe the interval shown using an inequality, set notation, and interval notation.



Describe the domain and range of the graph using an inequality, set notation, and interval notation. Then describe its end behavior.

3. Graph of  $f(x) = -x^2 + 3$ :



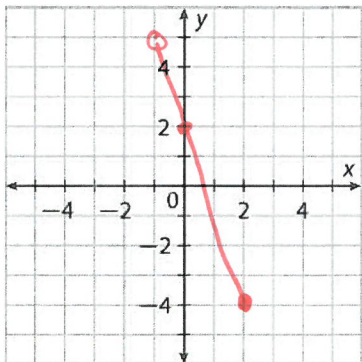
Domain:  
 Inequality:  $\mathbb{R}$   
 Set Notation:  $\mathbb{R}$   
 Interval Notation:  $(-\infty, \infty)$

Range:  
 Inequality:  $y \leq 3$   
 Set Notation:  $\{y | y \leq 3\}$   
 Interval Notation:  $(-\infty, 3]$

End Behavior:  
as  $x \rightarrow \infty$ ,  $f(x) \rightarrow -\infty$   
as  $x \rightarrow -\infty$ ,  $f(x) \rightarrow -\infty$

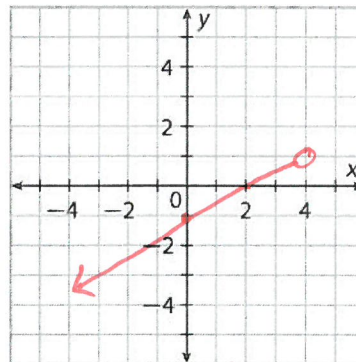
Draw the graph of the function with its given domain. Then determine the range using interval notation.

4.  $g(x) = -3x + 2$  with domain  $(-1, 2]$ :



Range:  $(-4, 5)$

5.  $h(x) = 0.5x - 1$  with domain  $(-\infty, 4)$ :



Range:  $(-\infty, 1)$