

# Analysis of Functions

Domain  
↳ Input  
X-values

Inequalities  
<, >, ≤, ≥

Interval  
Notation

Open  
<, >

Closed  
≤, ≥

( ) [ ]

( ] [ )

○ - parenthesis

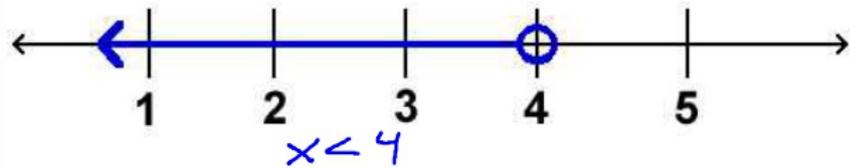
• - Bracket

∞, -∞ → para

Determine the domain for each number line given below

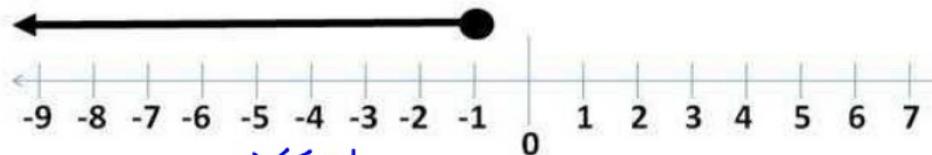
○ - not included

• - Included



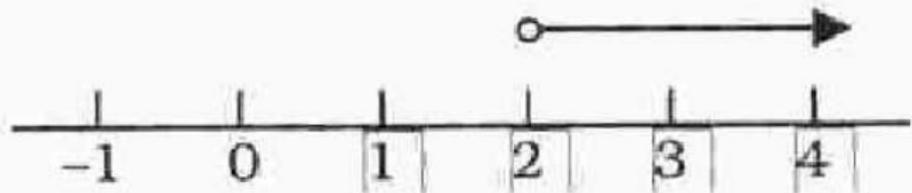
$$x < 4$$

$$(-\infty, 4)$$



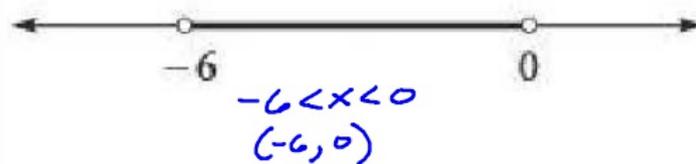
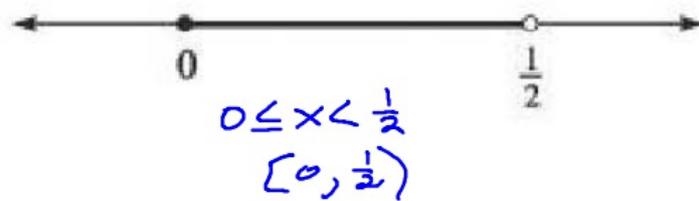
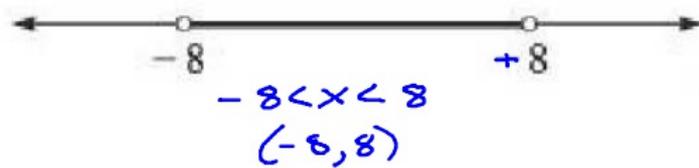
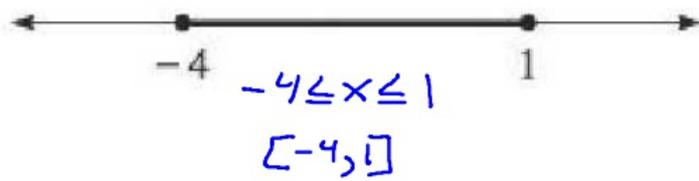
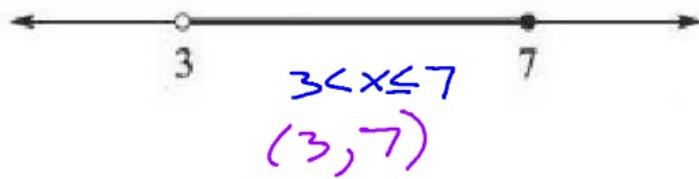
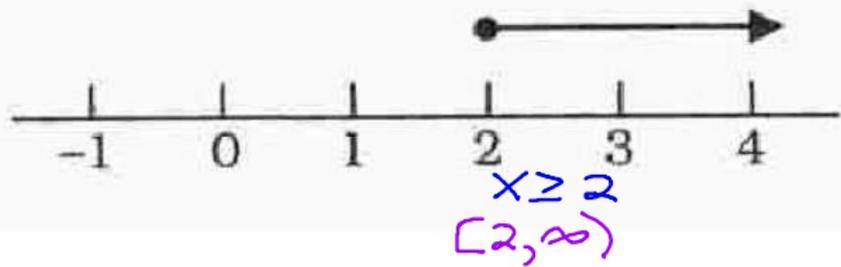
$$x \leq -1$$

$$(-\infty, -1]$$



$$x > 2$$

$$(2, \infty)$$

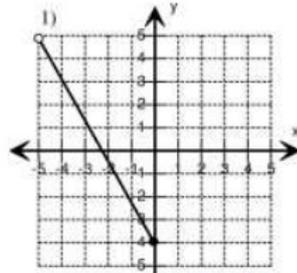


Domain  
X-values

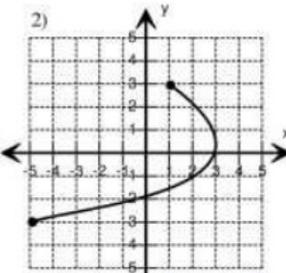
Range  
Y-values

Domain and Range

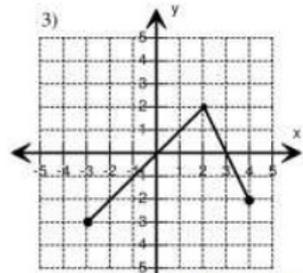
Find the Domain and Range for each graph.



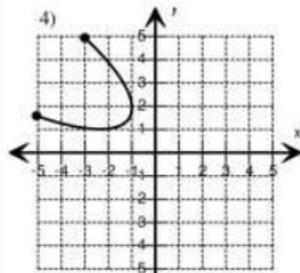
Domain:  $[-5, 0]$   
Range:  $[-5, 0]$



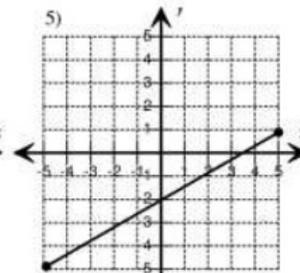
Domain:  $[-5, 3]$   
Range:  $[-3, 3]$



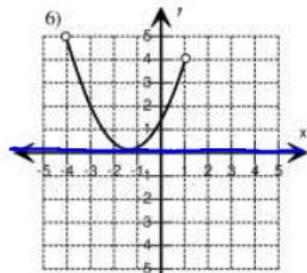
Domain:  $[-3, 4]$   
Range:  $[-3, 2]$



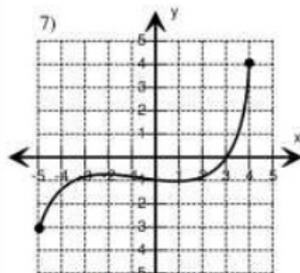
Domain:  $[-5, -1]$   
Range:  $[1, 5]$



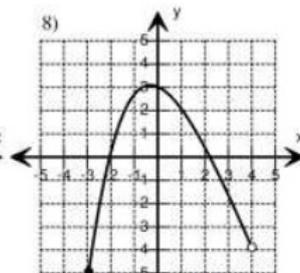
Domain:  $[-5, 5]$   
Range:  $[-5, 1]$



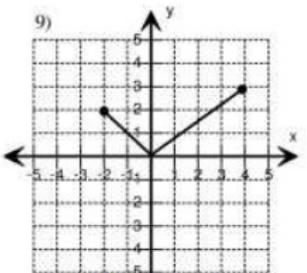
Domain:  $[-4, 1]$   
Range:  $[1, 5]$



D:  $[-5, 4]$   
R:  $[-3, 4]$



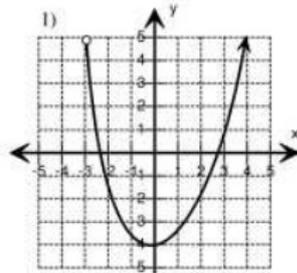
D:  $[-3, 4]$   
R:  $[-4, 3]$



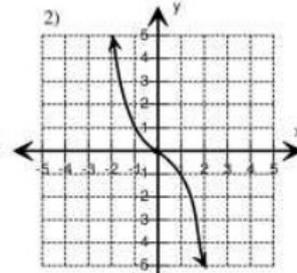
D:  $[-2, 4]$   
R:  $[0, 3]$

### Domain and Range

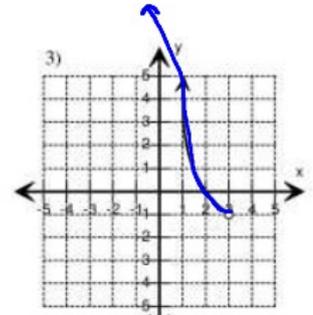
Find the Domain and Range for each graph.



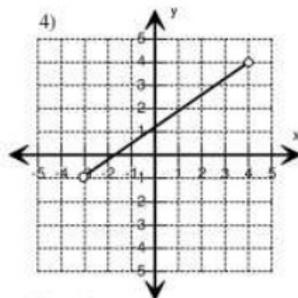
Domain :  $(-3, \infty)$   
Range :  $[-4, \infty)$



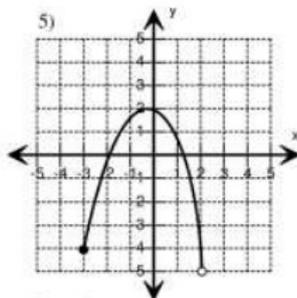
Domain :  $(-\infty, \infty)$   
Range :  $(-\infty, \infty)$



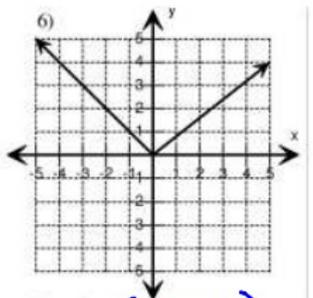
Domain :  $(-\infty, 3)$   
Range :  $(-1, \infty)$



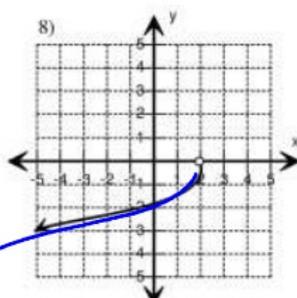
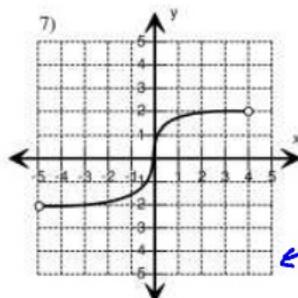
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



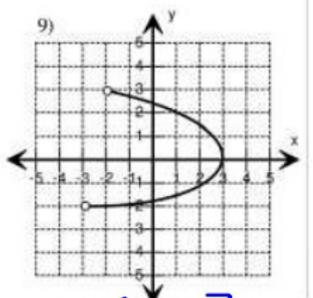
Domain : \_\_\_\_\_  
Range : \_\_\_\_\_



Domain :  $(-\infty, \infty)$   
Range :  $[0, \infty)$



D:  $(-\infty, 2)$   
R:  $(-\infty, 0)$



D:  $(-3, 3]$   
R:  $(-2, 3)$