

**FAR  
BEYOND**

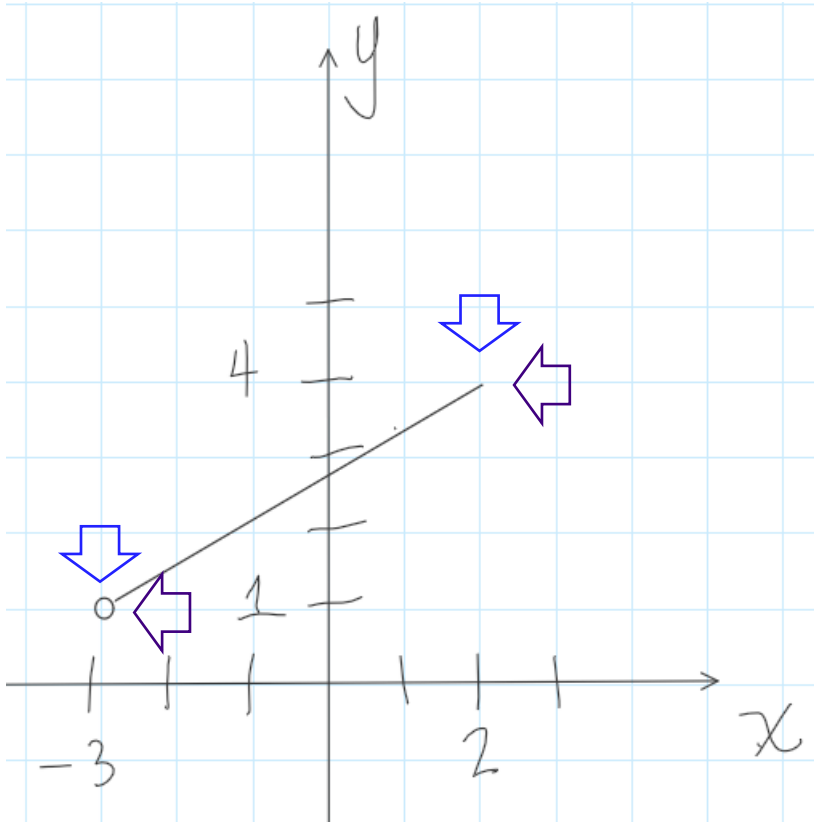
**MAT122**

# **Domain/Range from a Graph**



Stony Brook University

# Identify Domain/Range from a Graph



## Compound Inequality:

domain:      don't include -3      include 2  
 $-3 < x \leq 2$   
 $x$  is between -3 and 2

range:       $1 < y \leq 4$   
 $y$ -values are between 1 and 4

## Interval Notation

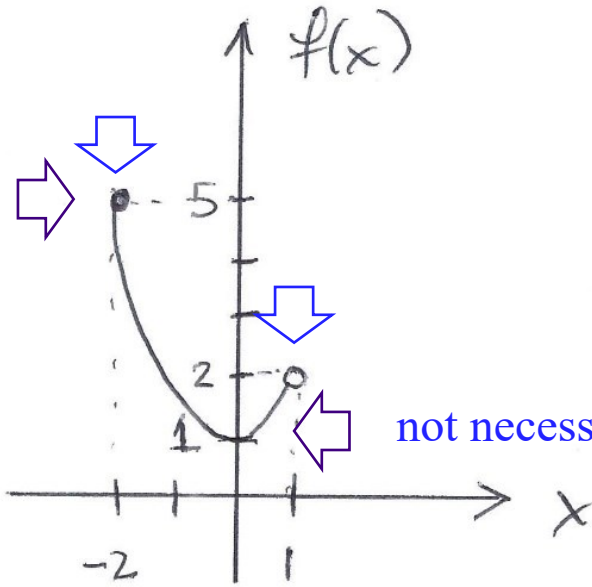
use parentheses for open circle

$(-3, 2]$

use bracket for closed circle

$(1, 4]$

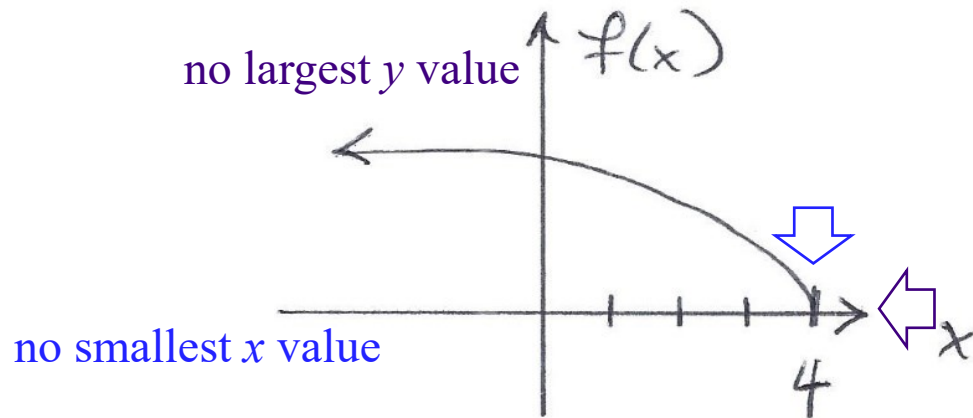
# Identify Domain/Range from a Graph (cont'd)



domain:  $[-2, 1)$

range:  $[1, 5]$

not necessarily at an endpoint



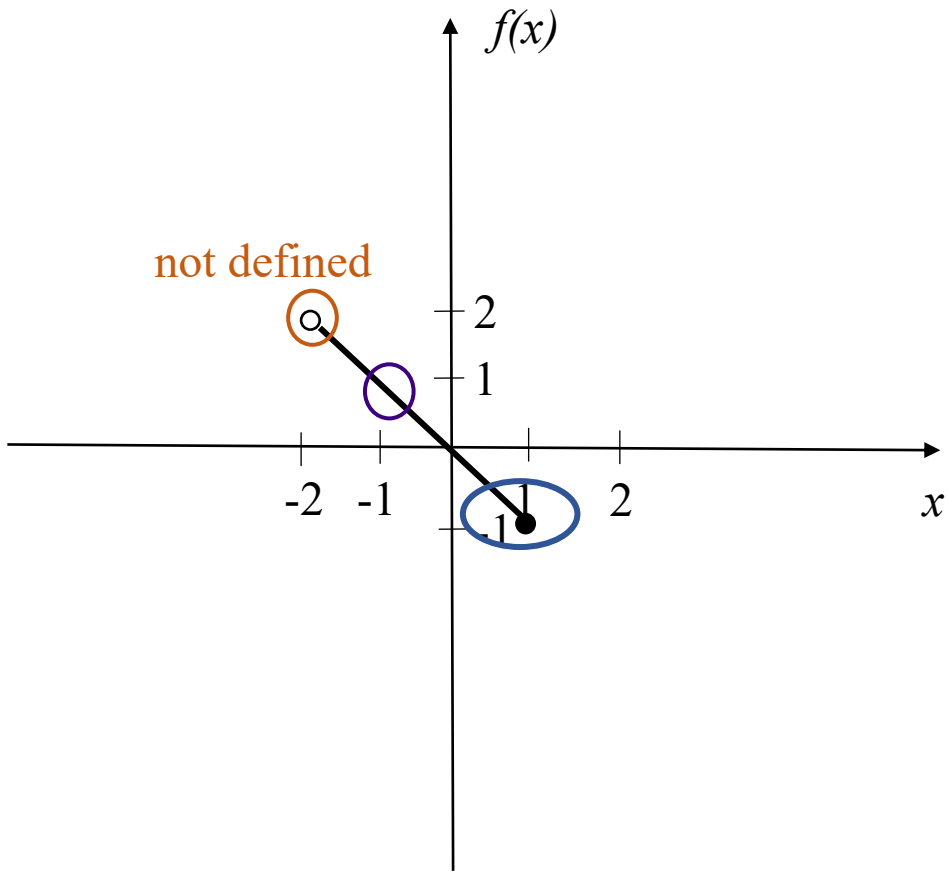
domain:

use parenthesis for  
either infinity  
 $(-\infty, 4]$

range:

$[0, \infty)$

# Identify Values on a Graph



For what  $x$ -value is ...

...  $f(x) = -1$ ?

$x = 1$

...  $f(x) = 1$ ?

$x = -1$

...  $f(x) = 2$ ?

none