

**FAR  
BEYOND**

**MAT122**

**Function Basics**



Stony Brook University

# Relations/Functions

**Function**:= a relation such that an  $x$ -value in its domain has **exactly** one  $y$ -value

recall relations from previous video:

$\{(A,1), (B,12), (C,5)\}$  is a function       $\{(\underline{A},1), (B,8), (C,1), (\underline{A},5)\}$  is not a function:

Do: Determine whether each relation is a function:

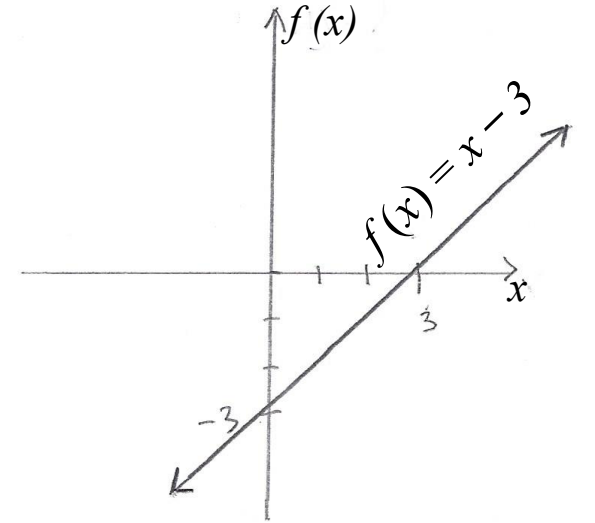
$\{(1,2), (3,4), (5,6), (5,8)\}$

$\{(1,2), (3,4), (6,5), (8,5)\}$

# Function Notation

once a relation is determined to be a function, use the notation:

$$y \Rightarrow f(x)$$



then just plug in an  $x$ -value to get the other coordinate for an ordered pair