

Unit 1 Function Relationships
Notes Day 7
Function Rules, Tables, and Graphs (PH 5-3)

Name _____
 Date _____ Hour _____

What is a FUNCTION?

- A relation where no x's repeat.
- Can be a graph, equation, or a table.

A **function rule** is an equation that describes a function.

Function notation is when you use $f(x)$ instead of y .

Regular notation: $y = 5x + 2$

Function notation: $f(x) = 5x + 2$

It is read as "f of x"

$f(x)$ is y

The **independent variable** is the input. It is usually _____.

The **dependent variable** is the output. It is usually _____ or _____.

$\{(0, 0), (-1, -1), (-2, -8), (-3, -27)\}$

Is the relation a function?

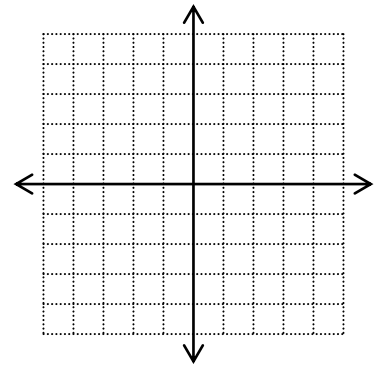
State the Domain

State the Range.

Example 1: Model each function rule using a table of values and a graph. State the domain and range of each.

a. $y = \frac{1}{3}x + 2$

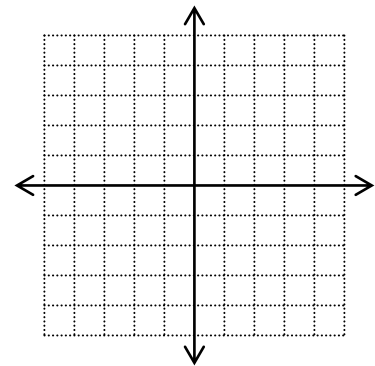
X	Y
-6	
-3	
0	
3	
6	



Domain: _____ Range: _____

b. $f(x) = |x| - 3$

X	f(x)
-2	
-1	
0	
1	
2	

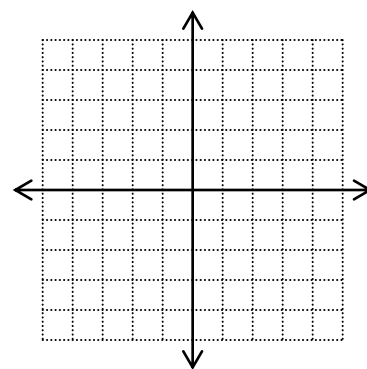


Domain: _____ Range: _____

The variables x and f (do not have to be used). Other combinations are possible.

c. $h(t) = 2t^2 - 1$

t	h(t)
-2	
-1	
0	
1	
2	



Domain: _____

Range: _____

Example 2: At the local video store you can rent a video game for \$3. It costs you \$5 a month to operate your video game player. The total monthly cost $C(v)$ depends on the number of video games you rent.

- Write a function rule to describe this relationship.
- Use your function rule to estimate how much it will cost for you to rent 17 video games.

Homework: pgs. 249 to 252 #9 – 23 odd, 27, 49, 52 – 54 all

