

Lesson 4-3A: Functions Rules
Algebra Bellwork - December 2, 2011

- 1) Determine whether each relation is a **function**.
- 2) Write a sentence to explain your answers.

x Domain	y Range		x Domain	y Range	
-8	10	→	12	4	
-5	11		→	8	4
0	1		2	-5	
6	8		1	2	
-5	-6		→	8	4



Domina
→ X

Y Range

C1

Limón Gatorade

D1

Pepsi

D2

Diet Pepsi

C1

Limón Gatorade

D5

Diet Coke

D6

Diet Coke

Objective: Today we will model functions using rules, table, and graphs.

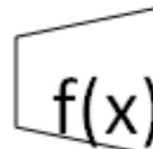
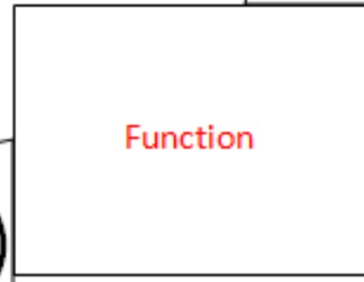
Function Rule: an equation that describes a function.

<u>Domain</u> Independent	<u>Range</u> Dependent
5	7
9	11
8	10

$f(x)$

$$f(x) = x + 2$$

Independent variable



Dependent variable



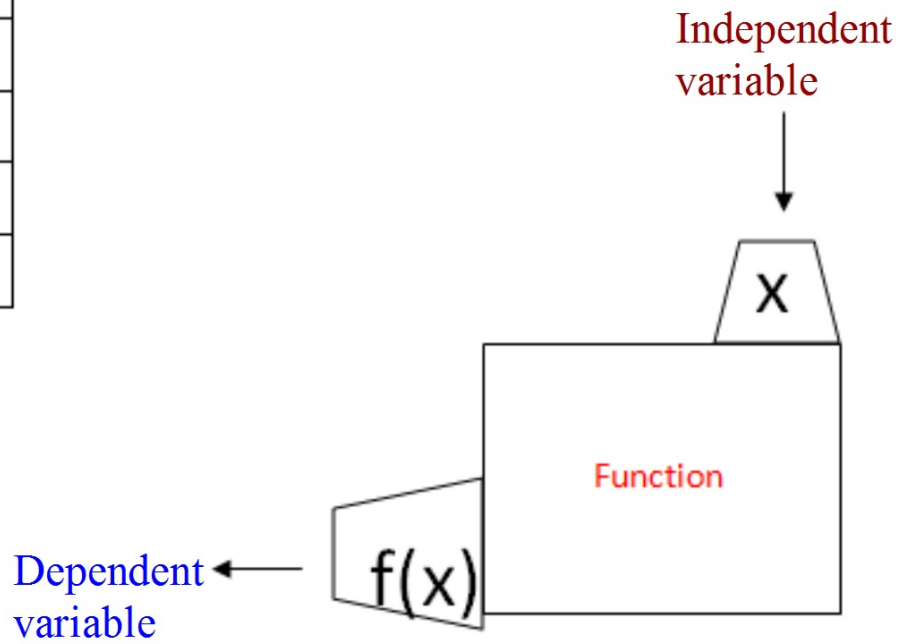
Find the range for the function:

$$f(x) = 3x - 5$$

Domain
Independent

Range
Dependent

x	$f(x)$



Find the range of each function for the domain $\{-4, 1, 3\}$.

1. $y = x + 7$

2. $f(x) = 11x - 1$

3. $g(x) = x^2$

4. $h(x) = -4x$

5. $y = 15 - x$

6. $f(n) = n^2 + 2$

7. $g(t) = \frac{1}{4}t$

8. $h(a) = -3a + 5$

x	$\frac{1}{4}t$	$g(t)$
-4	$\frac{1}{4} \begin{pmatrix} -4 \\ 1 \end{pmatrix}$	
1	$\frac{1}{4} \begin{pmatrix} 1 \\ 1 \end{pmatrix}$	
3	$\frac{1}{4} \begin{pmatrix} 3 \\ 1 \end{pmatrix}$	

