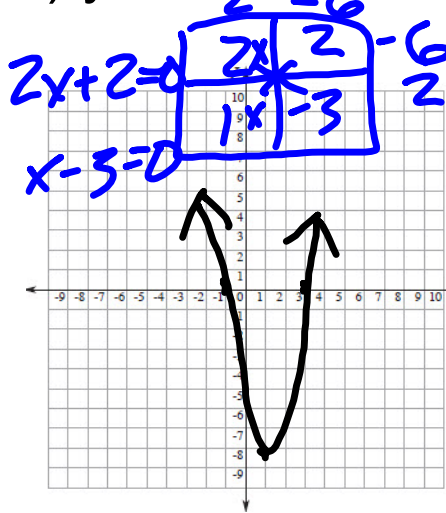


Warm up

Identify the vertex, axis of symmetry, and x intercepts then Graph it!

1) $y = 2x^2 - 4x - 6$



$x_{int} = 3, -1$
 $(-4) \pm \sqrt{(-4)^2 - 4(2)(-6)}$
 $\dots \frac{2(2) \pm \sqrt{4+48}}{2(2)}$

$\frac{4-8}{4} = -1$

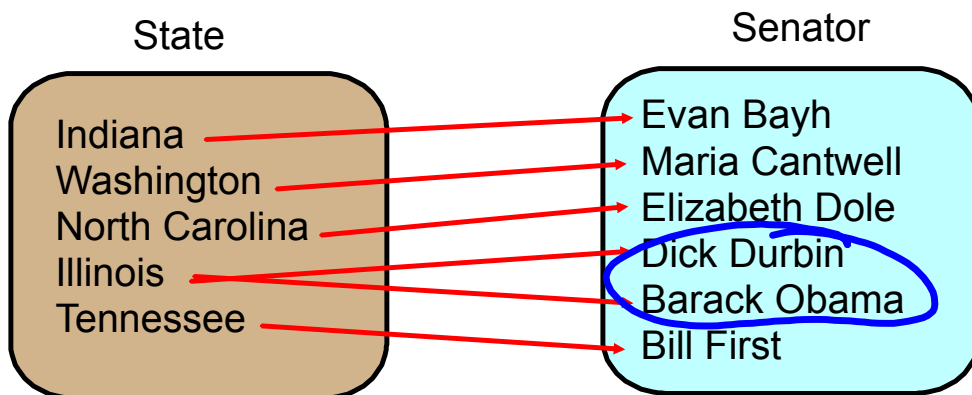
$\frac{4+8}{4} = 3$

Please pull out your Skills Sheet make sure it is filled out and put it on your desk I will collect it!!!

6.1 Evaluating Functions

- I can identify if the graph, the points, or the table, I am given is a function.
- I can evaluate a function at a given number.

If some one asked you who was the senator (not senators) of Illinois what would you say.



A **function** is a relation in which each element in the domain (the inputs) of the relation corresponds to exactly one element in the range (the outputs) of the relation.

(x, y)

$(3, 4), (2, 7), (3, 7)$

State whether each relation is a function.

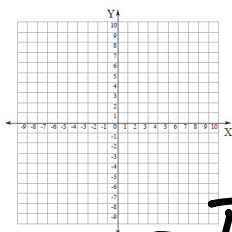
①

Right Humerus

Right Tibia

24.8	→	36.05
24.59	→	35.57
24.29	→	34.58
23.81	→	34.20
24.87	→	34.73

F



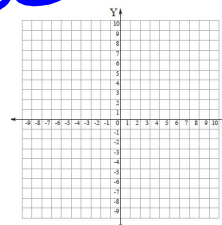
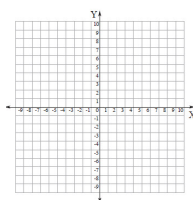
② I

Age

Cholesterol

38	→	57
42	→	54
46	→	34
55	→	38
61	→	38

NOT



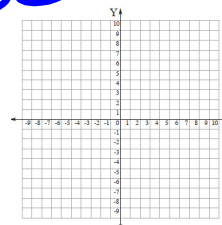
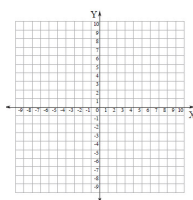
③

Carats

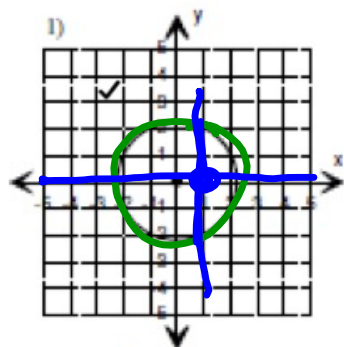
Price

0.71	→	\$1,999
0.73	→	\$2,446
0.74	→	\$2,057
0.76	→	\$3,047
0.86	→	\$3,329
0.86	→	\$3,097

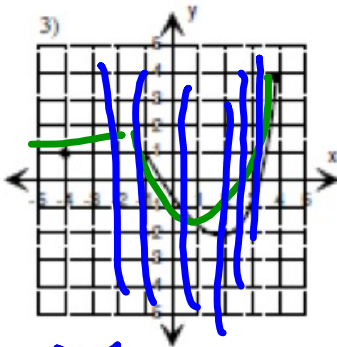
(Blue circle around the last two rows of the table)



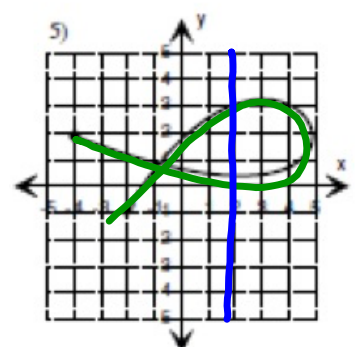
Identify if it is a function



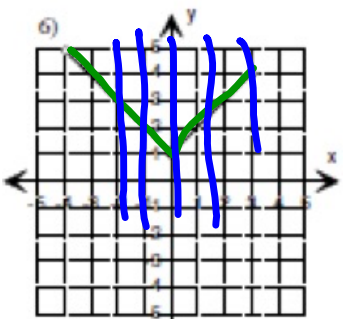
Function
 Not a Function



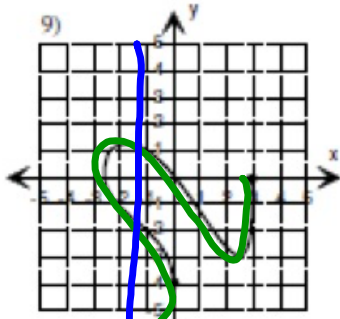
Function
 Not a Function



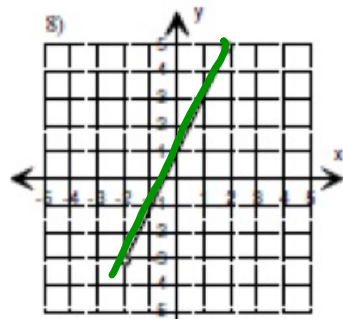
Function
 Not a Function



Function
 Not a Function



Function
 Not a Function



Function
 Not a Function

Evaluate each function

$f(x)$	$3 + 2x$	$x - 5$	$-3x + 7$	$7x - 8$	x^2
$f(-4)$	$3 + 2(-4)$ -5	$-4 - 5$ -9	$-3(-4) + 7$ 19	$7(-4) - 8$ -36	$(-4)^2$ 16
$f(-2)$	-1	-7	13	-22	4
$f(1)$	5	-4	4	-1	1
$f(3)$	9	-2	-2	13	9
$f(5)$	13	0	22	27	25

x

|

Evaluate each function



$f(x)$	$x-2$	$2x$ + 3	$3x^2$ + x
$f(n+1)$	$(n+1)-2$ $n-1$	$2(n+1)$ + 3 $2n+2+3$ $2n+5$	$3(n+1)^2$ + $(n+1)$ $3(n^2+2n+1)+n+1$ $3n^2+6n+3+n+1$
$f(3t)$	$3t-2$	$6t+3$	$3n^2+7n+4$ $3(3t)^2$ $3(9t^2)$ $27t^2$

**Please empty your homework
out of your bin!! :) $27t^2$**