

To graph a function for the given domain.

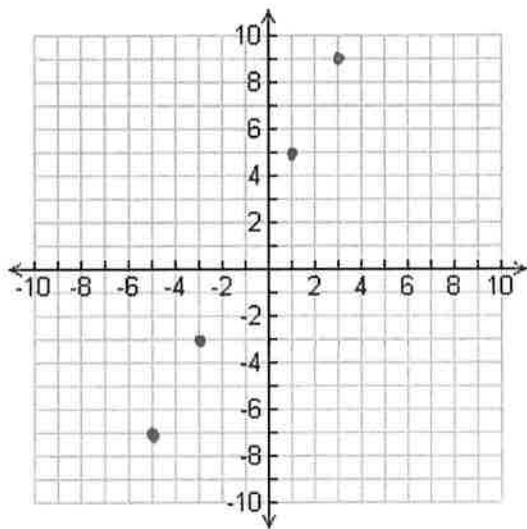
- 1.) Solve the equation for y.
- 2.) Make a table of values. Substitute the values of the domain in for x.
- 3.) Plot the points to graph the function.

Graph each function for the given domain.

Ex 1:  $-2x + y = 3$ ; D:  $\{-5, -3, 1, 3\}$

$$\begin{array}{r} +2x \quad +2x \\ \hline y = 2x + 3 \end{array}$$

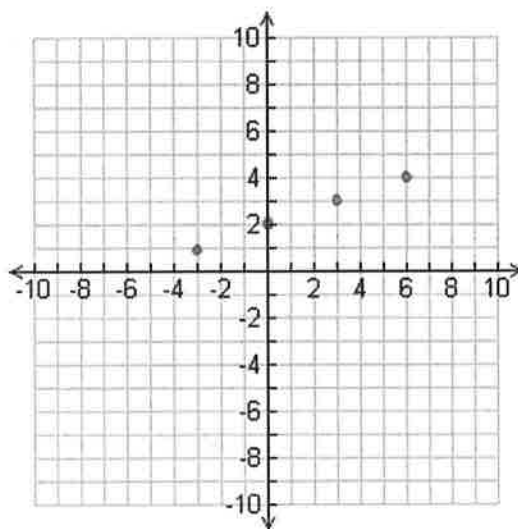
x	$y = 2x + 3$	y
-5	$y = 2(-5) + 3$ $= -10 + 3$	-7 (-5, -7)
-3	$y = 2(-3) + 3$ $y = -6 + 3$	-3 (-3, -3)
1	$y = 2(1) + 3$ $y = 2 + 3$	5 (1, 5)
3	$y = 2(3) + 3$ $y = 6 + 3$	9 (3, 9)



Ex 2:  $x - 3y = -6$ ; D:  $\{-3, 0, 3, 6\}$

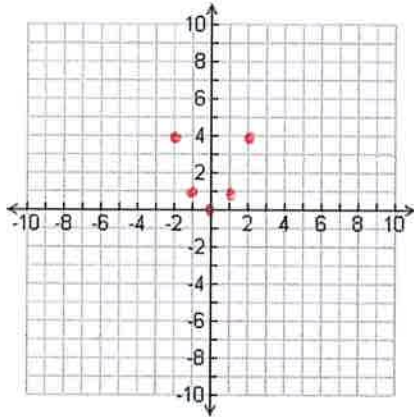
$$\begin{array}{r} -x \quad -x \\ \hline -3y = -x - 6 \\ \frac{-3y}{-3} = \frac{-x}{-3} - \frac{6}{-3} \\ y = \frac{1}{3}x + 2 \end{array}$$

x	$y = \frac{1}{3}x + 2$	y
-3	$y = \frac{1}{3}(-3) + 2$ $= -1 + 2$	1 (-3, 1)
0	$y = \frac{1}{3}(0) + 2$ $y = 0 + 2$	2 (0, 2)
3	$y = \frac{1}{3}(3) + 2$ $y = 1 + 2$	3 (3, 3)
6	$y = \frac{1}{3}(6) + 2$ $y = 2 + 2$	4 (6, 4)



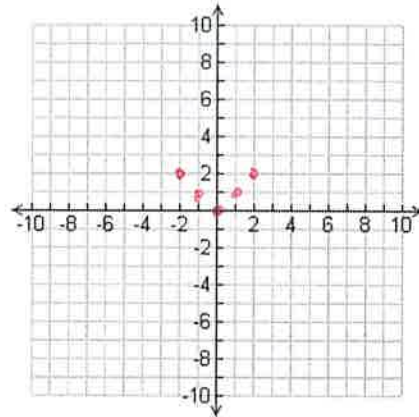
Ex 3:  $f(x) = x^2$ ; D:  $\{-2, -1, 0, 1, 2\}$

x	$f(x) = x^2$	y	
-2	$(-2)^2$	4	$(-2, 4)$
-1	$(-1)^2$	1	$(-1, 1)$
0	$(0)^2$	0	$(0, 0)$
1	$(1)^2$	1	$(1, 1)$
2	$(2)^2$	4	$(2, 4)$



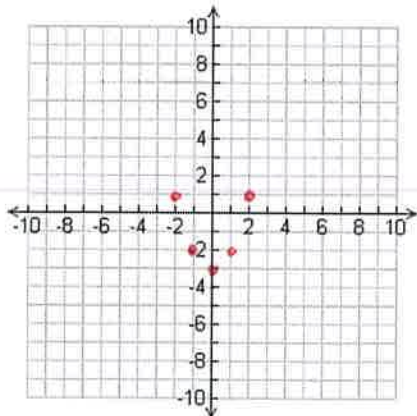
Ex 4:  $f(x) = |x|$ ; D:  $\{-2, -1, 0, 1, 2\}$

x	$f(x) =  x $	y	
-2	$ -2 $	2	$(-2, 2)$
-1	$ -1 $	1	$(-1, 1)$
0	$ 0 $	0	$(0, 0)$
1	$ 1 $	1	$(1, 1)$
2	$ 2 $	2	$(2, 2)$



Ex 5:  $f(x) = x^2 - 3$ ; D:  $\{-2, -1, 0, 1, 2\}$

x	$f(x) = x^2 - 3$	y	
-2	$(-2)^2 - 3$ $4 - 3$	1	$(-2, 1)$
-1	$(-1)^2 - 3$ $1 - 3$	-2	$(-1, -2)$
0	$(0)^2 - 3$ $0 - 3$	-3	$(0, -3)$
1	$(1)^2 - 3$ $1 - 3$	-2	$(1, -2)$
2	$(2)^2 - 3$ $4 - 3$	1	$(2, 1)$



Ex 6:  $f(x) = |x| + 2$ ; D:  $\{-2, -1, 0, 1, 2\}$

x	$f(x) =  x  + 2$	y	
-2	$ -2  + 2$ $2 + 2$	4	$(-2, 4)$
-1	$ -1  + 2$ $1 + 2$	3	$(-1, 3)$
0	$ 0  + 2$ $0 + 2$	2	$(0, 2)$
1	$ 1  + 2$ $1 + 2$	3	$(1, 3)$
2	$ 2  + 2$ $2 + 2$	4	$(2, 4)$

