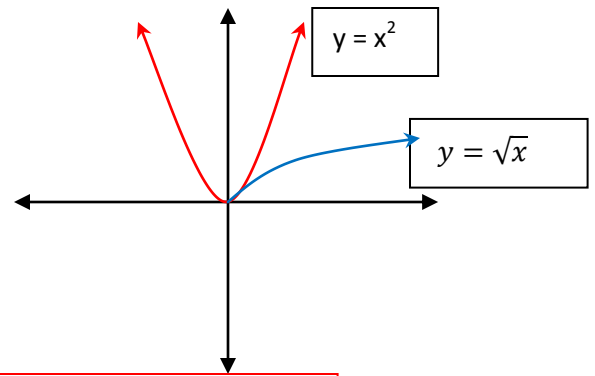
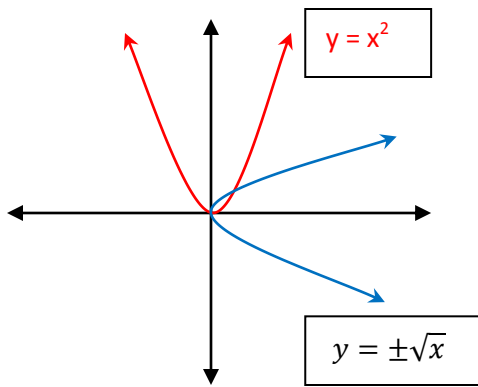


SQUARE ROOT FUNCTIONS

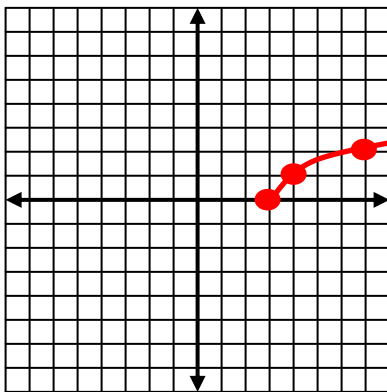


1) create and solve an inequality. Whatever is inside the square root must be ≥ 0
 $x - 3 \geq 0$
 $x \geq 3$

2) make an x/y-chart, starting with the solution from the first step

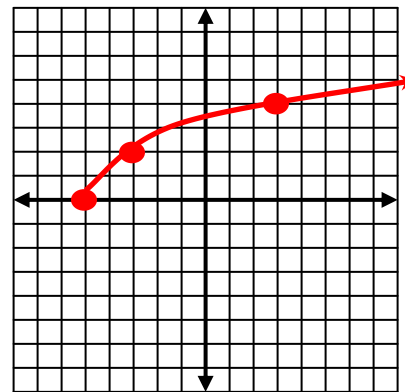
Examples:
Graph the following radical equations.

1) $y = \sqrt{x - 3}$



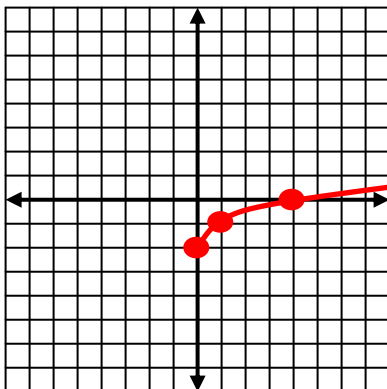
x	y
3	0
4	1
7	2

2) $y = \sqrt{2x + 10}$



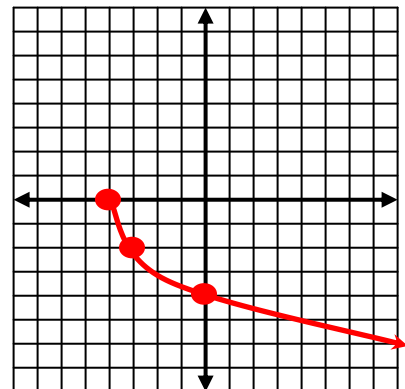
x	y
-5	0
-3	2
3	4

3) $y \leq \sqrt{x} - 2$



x	y
0	-2
1	-1
4	0

4) $y > -2\sqrt{x + 4}$



x	y
-4	0
-3	-2
0	-4

Domain & Range

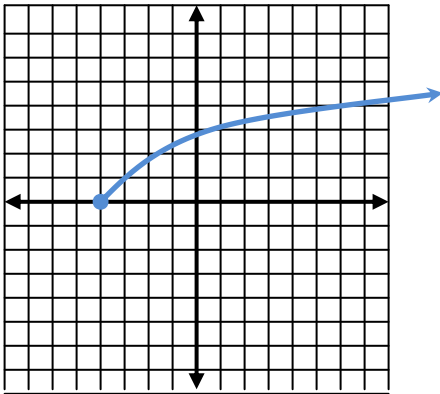
Domain: all x-values for a given function

Range: all y-values for a given function

Examples:

Name the domain and range for each graph shown.

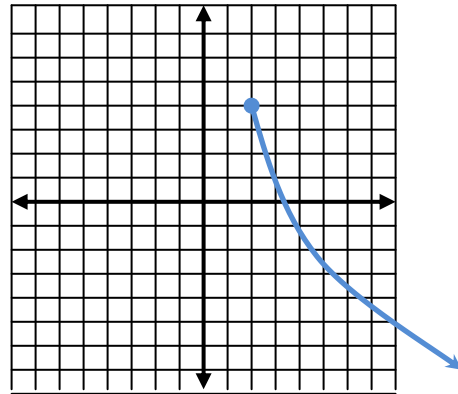
1)



Domain: $x \geq -4$

Range: $y \geq 0$

2)



Domain: $x \geq 2$

Range: $y \leq 4$

3) Name the domain and range for the problems previously graphed from the first page

1) D: $x \geq 3$

R: $y \geq 0$

2) D: $x \geq -5$

R: $y \geq 0$

3) D: $x \geq 0$

R: $y \geq -2$

4) D: $x \geq -4$

R: $y \leq 0$