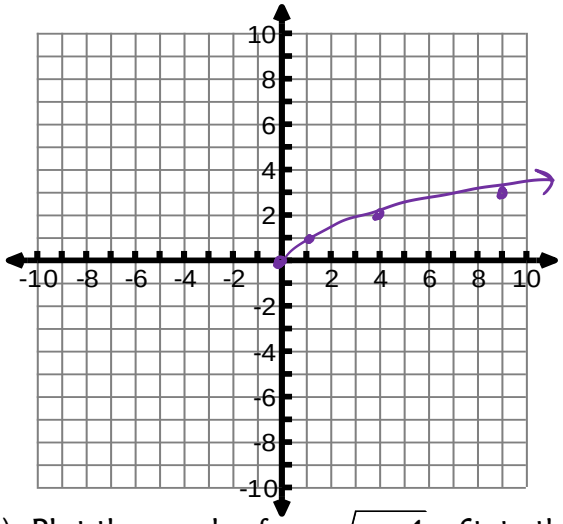
Day 14
HW/Notes

2.1/2.22 GRAPHS OF FUNCTIONS AND RELATIONS

OBJECTIVES: Graph various functions without a calculator and state their domain and range.

PLOTTING MORE FUNCTIONS

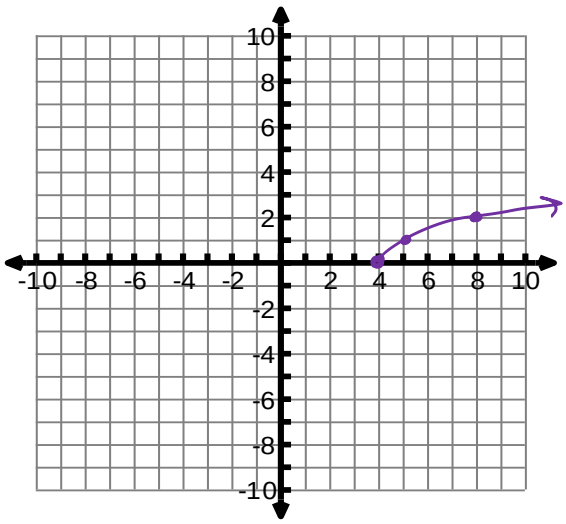
1) Plot the graph of $y = \sqrt{x}$. State the domain and range.



x	y
0	0
1	1
4	2
9	3
16	4

D: $x \geq 0$
R: $y \geq 0$

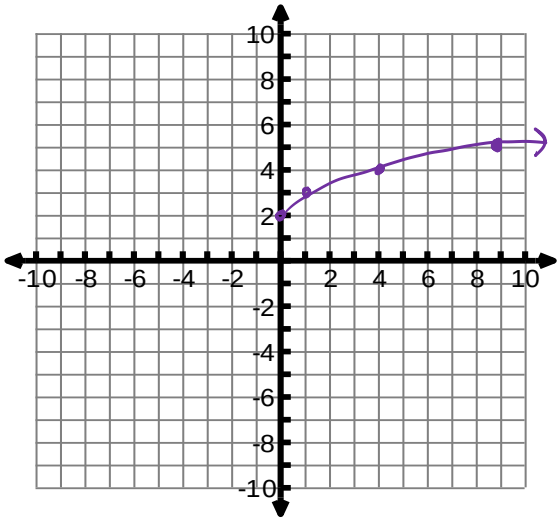
2) Plot the graph of $y = \sqrt{x-4}$. State the domain and range.



x	y
4	0
5	1
8	2
13	3

D: $x \geq 4$
R: $y \geq 0$

3) Plot the function $y = \sqrt{x} + 2$. State the domain and range.

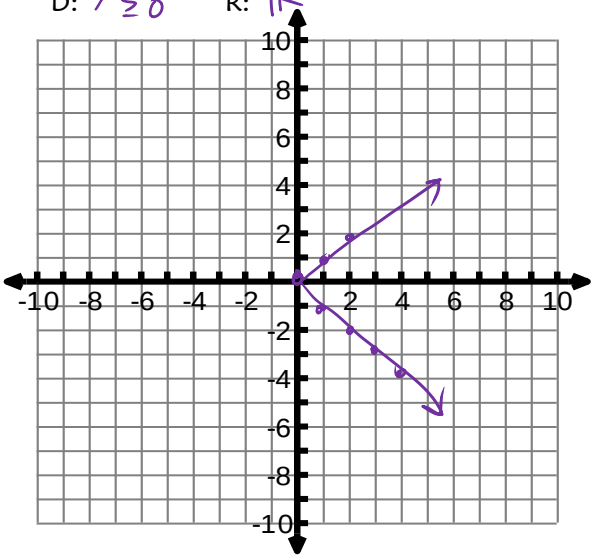


x	y
0	2
1	3
4	4
9	5

D: $x \geq 0$
R: $y \geq 2$

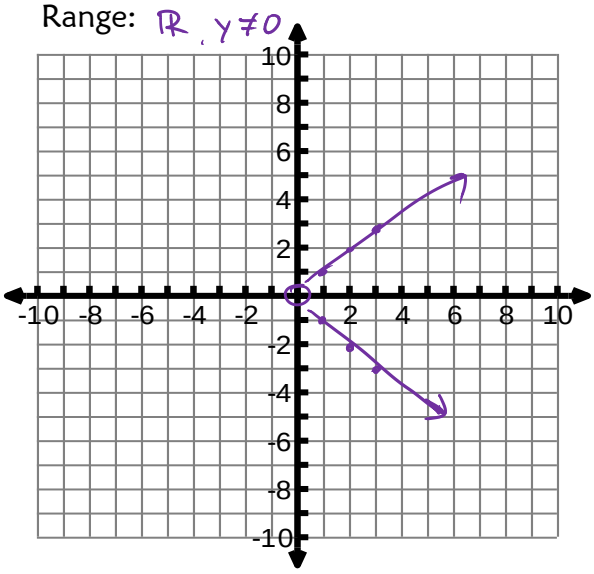
4) $x = |y|$. State the domain and range.

D: $x \geq 0$ R: $\mathbb{R}$



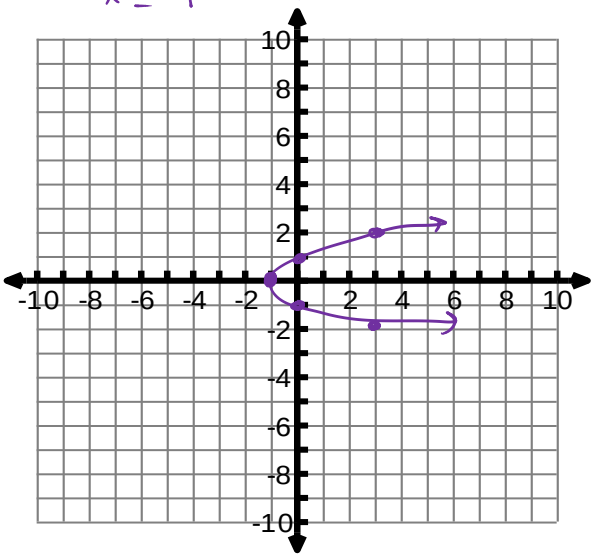
Domain: {Positive reals}

Range: $\mathbb{R}, y \neq 0$



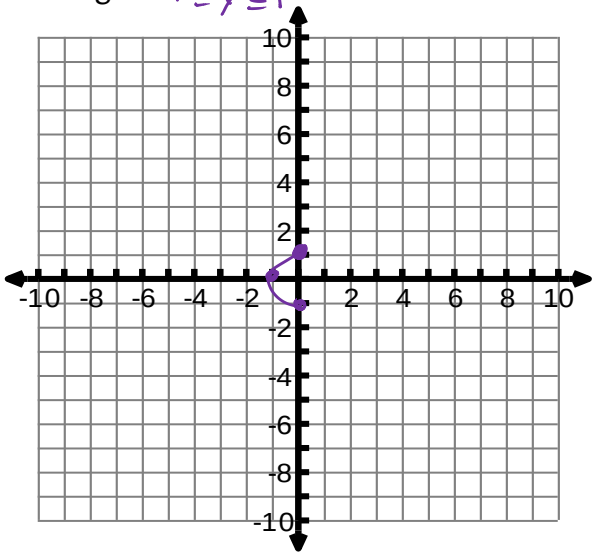
5) $x = y^2 - 1$. State the domain and range.

D: $x \geq -1$ R: $\mathbb{R}$



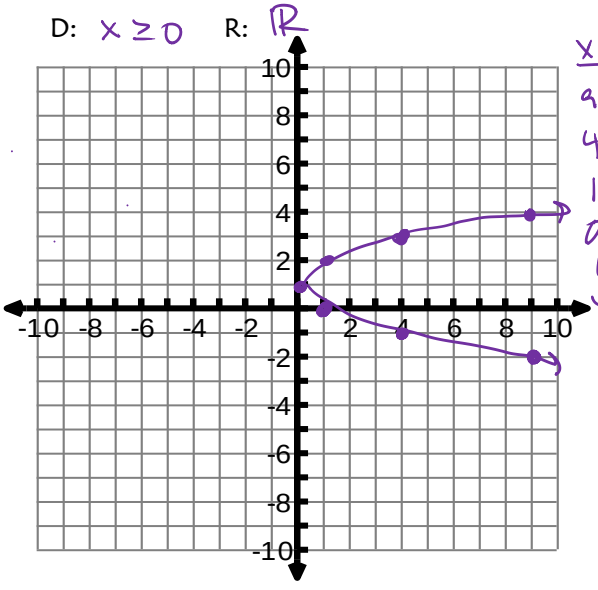
Domain: {Non-positive reals}

Range: $-1 \leq y \leq 1$



6) $x = (y-1)^2$. State the domain and range.

D: $x \geq 0$ R: $\mathbb{R}$



x	y
9	-2
4	-1
1	0
0	1
1	2
4	3
9	4

Domain: {Non-positive reals}

Range: $\{1\}$