



# GRAPHS OF FUNCTIONS WITH LIMITED DOMAINS

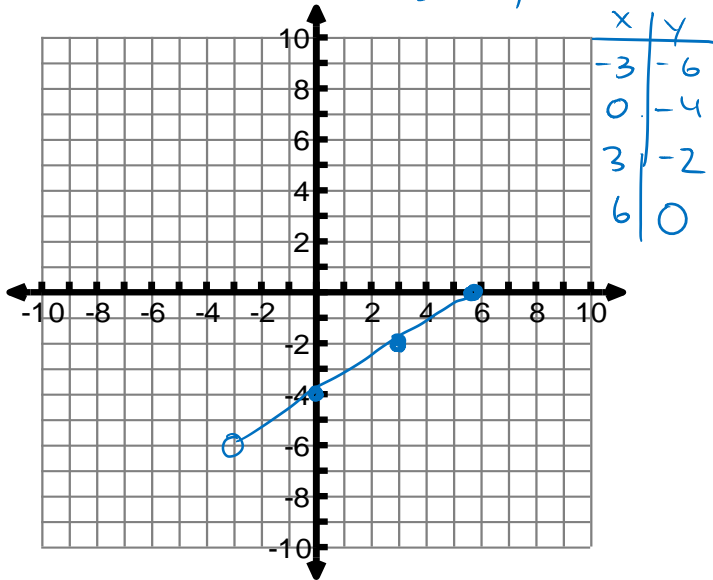
: Graph various functions without a calculator within a LIMITED DOMAIN.

## PLOTTING FUNCTIONS WITH A LIMITED DOMAIN

Plot the given function with each specific domain and state the range.

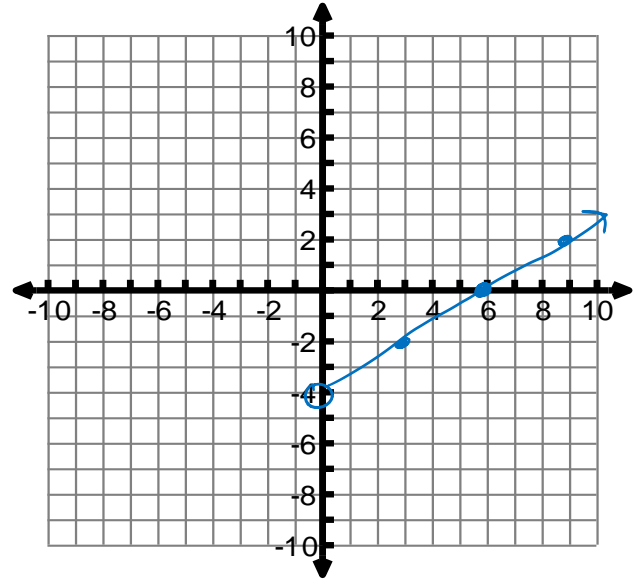
1)  $y = \frac{2}{3}x - 4$  Domain:  $\{-3 < x \leq 6\}$

Range:  $\{-6 < y \leq 0\}$



Domain: {Positive reals}

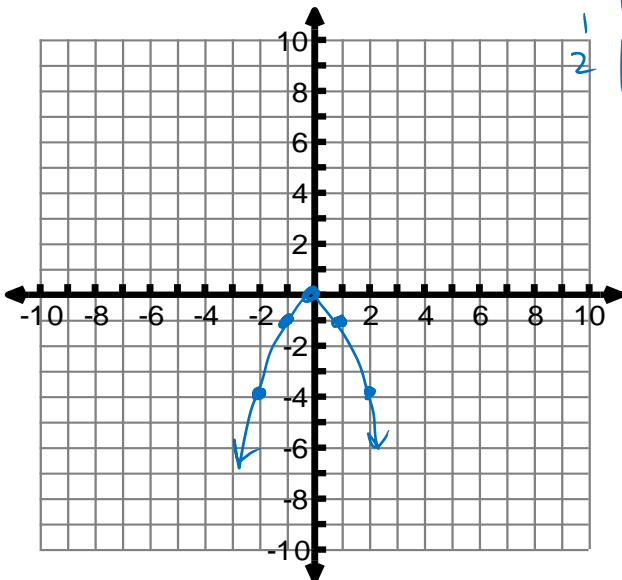
Range:  $y > -4$



2)  $y = -x^2$  Domain: {Reals}

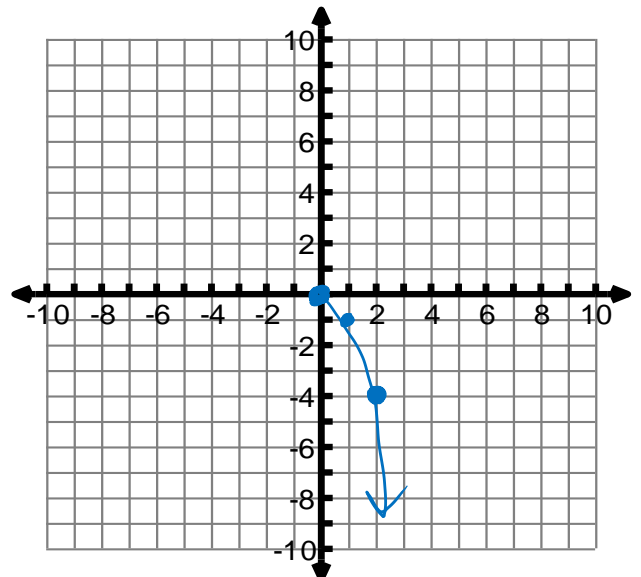
Range:  $\mathbb{R}$

x	y
-2	-4
-1	-1
0	0
1	-1
2	-4



Domain: {Non-negative reals}

Range:  $y \leq 0$



3)  $y = x^2 - 6$

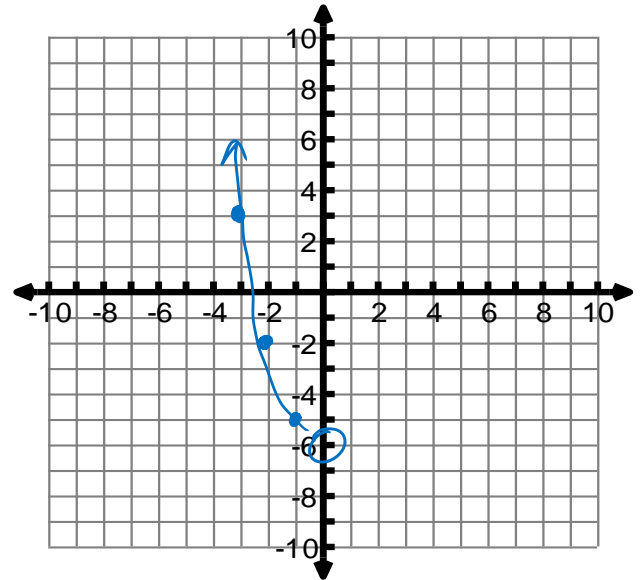
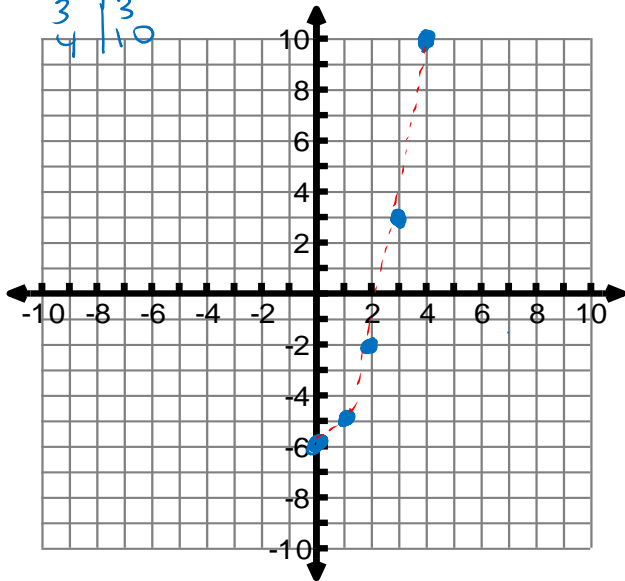
Domain:  $\{0, 1, 2, 3, 4\}$

Domain:  $\{\text{Negative reals}\}$

x	y
0	-6
1	-5
2	-2
3	3
4	10

Range:  $\{-6, -5, -2, 3, 10\}$

Range:  $y > -6$



4)  $y = |x - 2|$

Domain:  $\{\text{Reals}\}$

Domain:  $\{x \geq 0\}$

Range:  $y \geq 0$

Range:  $y \geq 0$

