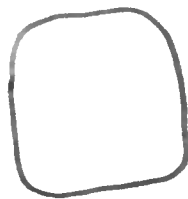
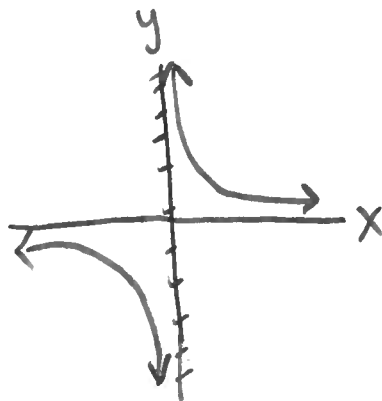
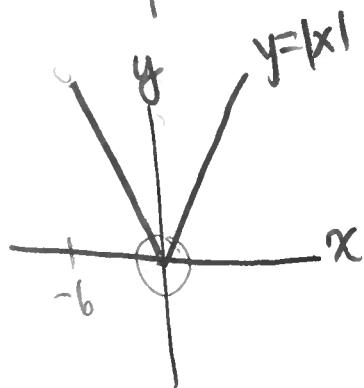
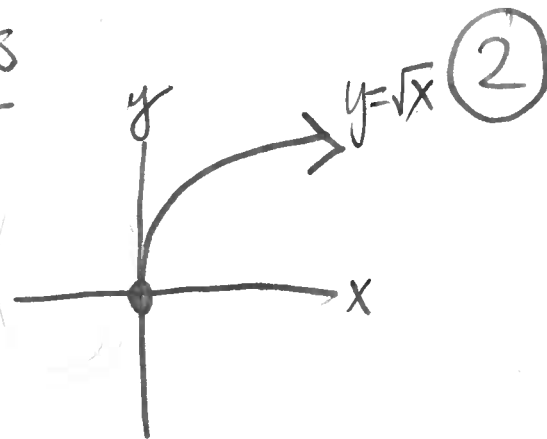
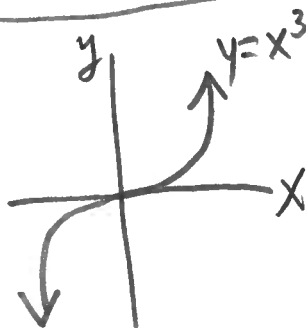
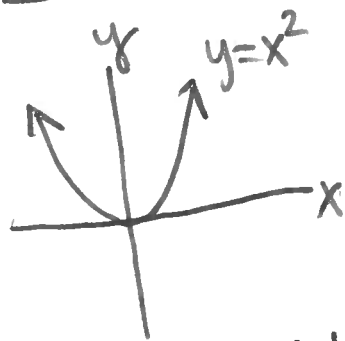


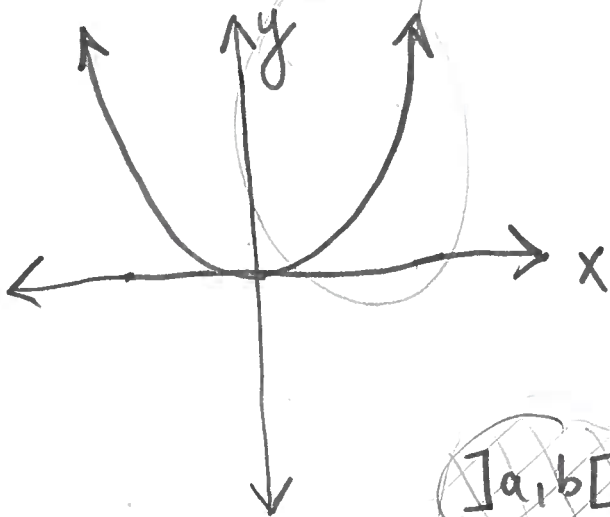
Library of common functions



Desmos

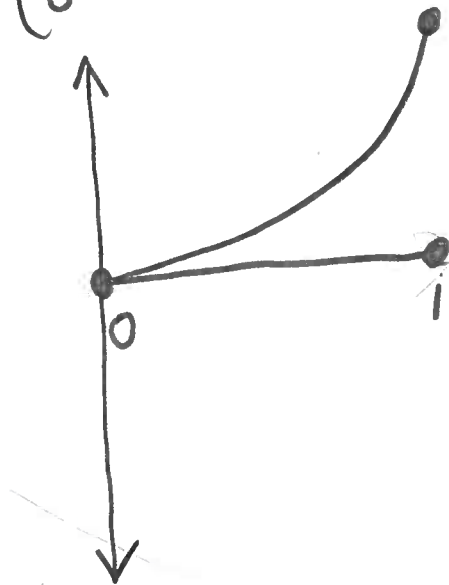
^ -(shift+b+6)

EX: $\begin{cases} f: \mathbb{R} \rightarrow \mathbb{R} \\ f(x) = x^2 \end{cases}$



~~$]a, b[$~~

EX: $\begin{cases} g: [0, 1] \rightarrow \mathbb{R} \\ g(x) = x^2 \end{cases}$

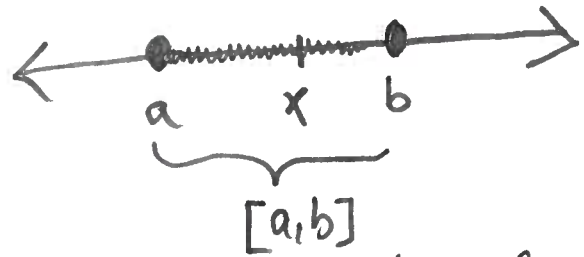


~~EX:~~ $[a, b]$

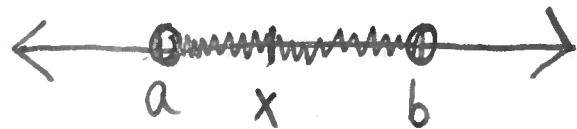
(3)

notation ~~notation~~ a b

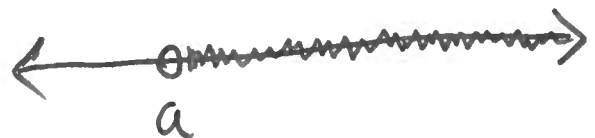
$[a, b]$ - closed interval
 $a \leq x \leq b$



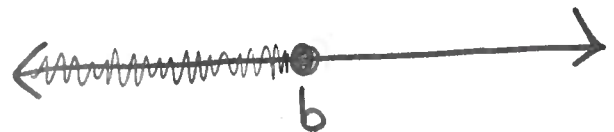
~~$]a, b[$~~ = (a, b) - open interval
 $a < x < b$



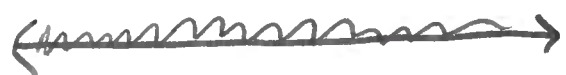
(a, ∞)



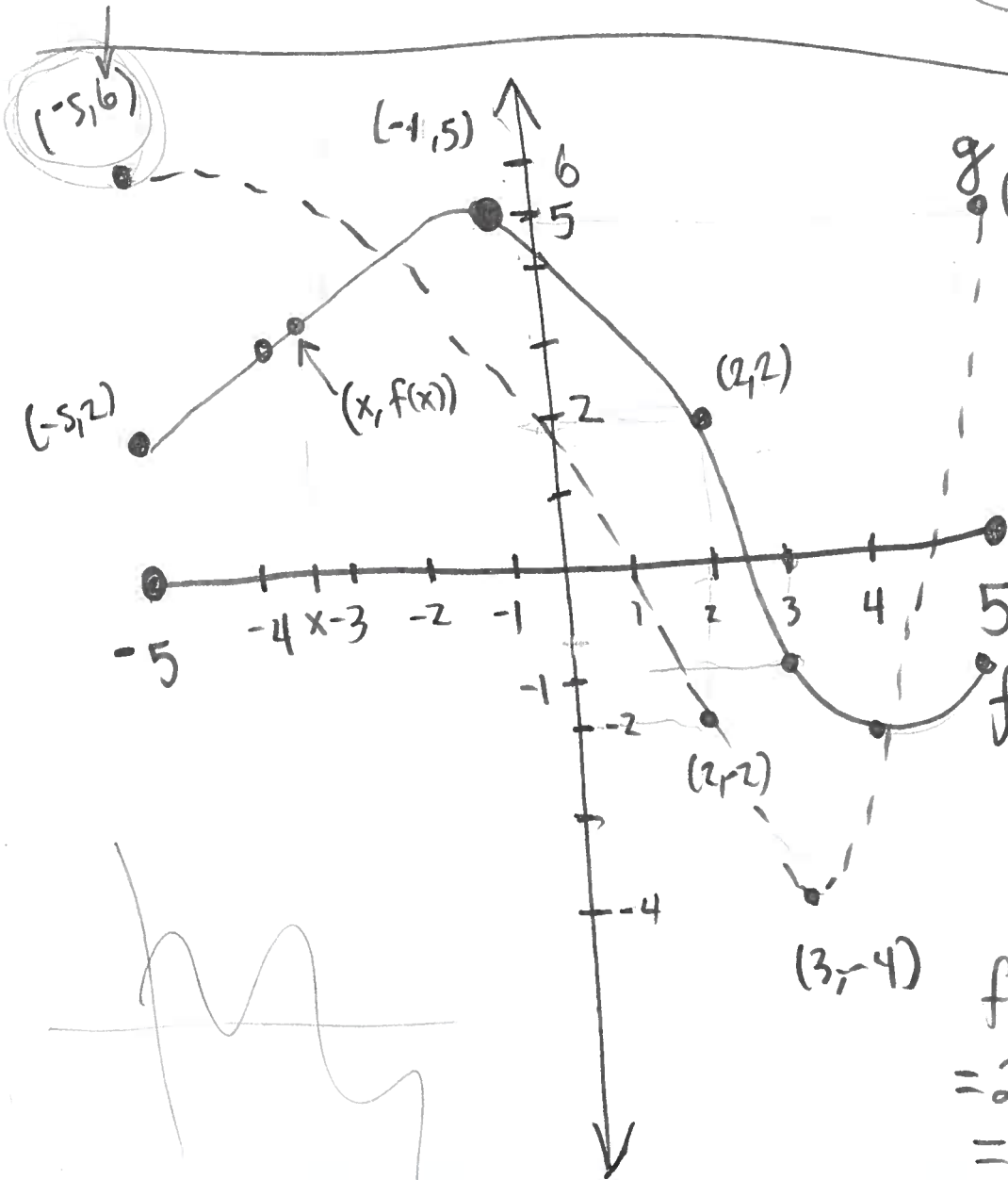
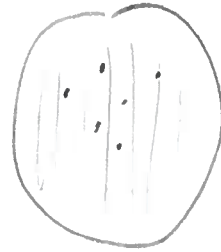
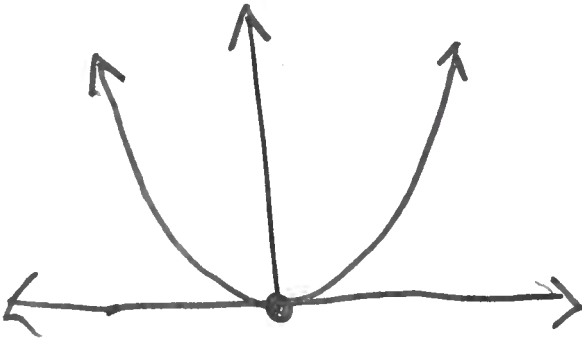
$(-\infty, b]$



$\mathbb{R} = (-\infty, \infty)$



Ex: $\begin{cases} h: \mathbb{R} \rightarrow [0, \infty) \\ h(x) = x^2 \end{cases}$



$g(5, 5)$

$\text{domain}(f) = [-5, 5]$

$\text{domain}(g) = [-5, 5]$

$\text{range}(f) = [-2, 5]$

$\text{range}(g) = [-4, 6]$

$f(3) = -1$

$g(-5) = 6$

$f(2) + g(2) =$
 $= 2 + (-2)$
 $= 0$

