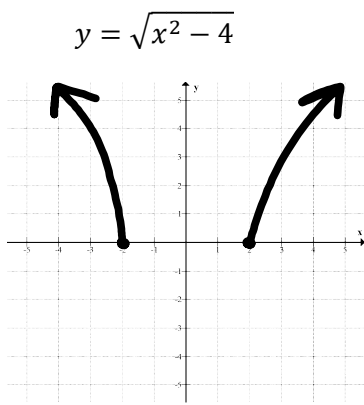
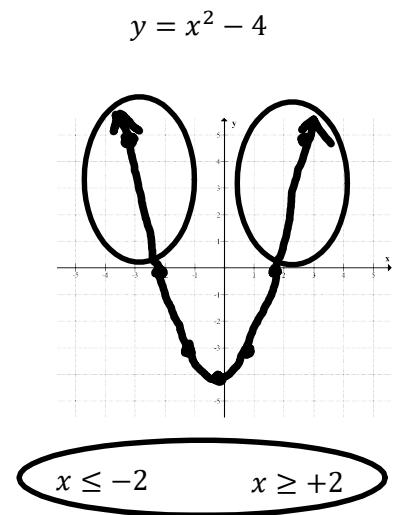


# C11 - 9.5 - Inequalities Quadratic Restrictions Notes

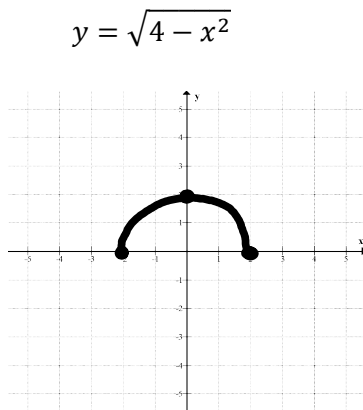


$$\begin{aligned}
 x^2 - 4 &\geq 0 \\
 x^2 &\geq 4 \\
 \sqrt{x^2} &\geq \sqrt{4} \\
 |x| &\geq 2 \\
 \pm x &\geq 2 \\
 x &\geq 2 \quad -x \geq 2 \\
 &\quad \quad \quad x \leq -2 \\
 x &\geq +2 \quad x \leq -2
 \end{aligned}$$

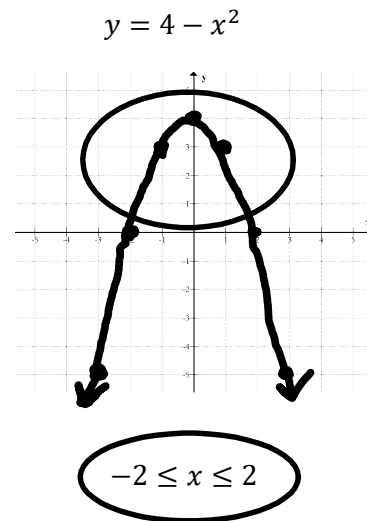


$x$	$y$
-3	$\sqrt{5}$
-2	0
2	0
3	$\sqrt{5}$

Range  
 $y \geq 0$



$$\begin{aligned}
 4 - x^2 &\geq 0 \\
 x^2 &\leq 4 \\
 x &\leq 2 \quad x \geq -2 \\
 -2 &\leq x \leq 2
 \end{aligned}$$



$x$	$y$
-2	0
0	2
2	0

Range  
 $0 \leq y \leq 2$