

Recap

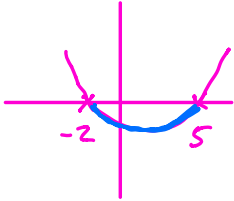
Quadratic Inequalities

Ex 1

$$x^2 - 3x - 10 < 0$$
$$(x + 2)(x - 5) < 0$$

$$\begin{array}{ll} +1 & -10 \\ -1 & +10 \\ +2 & -5 \checkmark \\ -2 & +5 \end{array}$$

$$y = x^2 - 3x - 10$$



$$-2 < x < 5$$

$$x + 2 = 0$$

$$\underline{x = -2}$$

$$x - 5 = 0$$

$$\underline{x = 5}$$

Ex 2

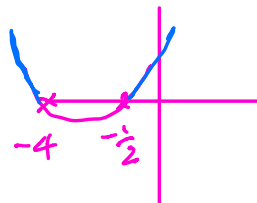
$$2x^2 + 9x + 4 \geq 0$$

$$2x^2 + x + 8x + 4 \geq 0$$

$$x(2x+1) + 4(2x+1) \geq 0$$

$$(x+4)(2x+1) \geq 0$$

$$y = 2x^2 + 9x + 4$$



$$x \geq -\frac{1}{2}$$

$$\text{OR } x \leq -4$$

$$2x+1=8$$

$$+1 + 8$$

$$x+4=0$$

$$x = -4$$

$$2x+1=0$$

$$2x = -1$$

$$x = -\frac{1}{2}$$