

1.5 Solving Equations & Inequalities by Graphing

Solve

①

Algebraically

$$-3x + 20 = 5$$

$$-3x = -15$$

$$\boxed{x = 5}$$

Graphically

$$y = -3x + 20$$

$$y = 5$$



$$x = 5$$

②

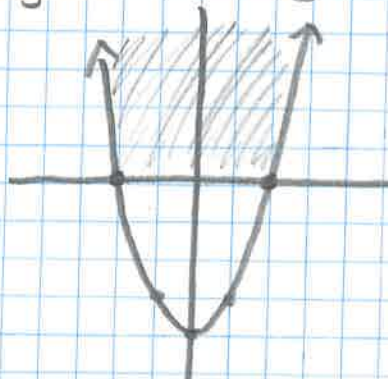
$$x^2 - 4 > 0$$

$$x^2 > 4$$

$$x > 2 \quad -x > 2$$

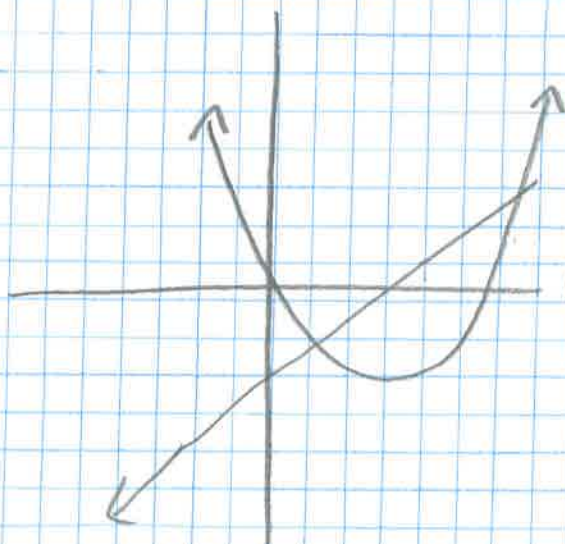
$$x > 2 \quad x < -2$$

$$y = x^2 - 4 \quad y > 0$$



Ex 1

$$x^2 - 4x + 1 = x - 2$$



① Graph on graphing calc

$$y_1 = x^2 - 4x + 1$$

$$y_2 = x - 2$$

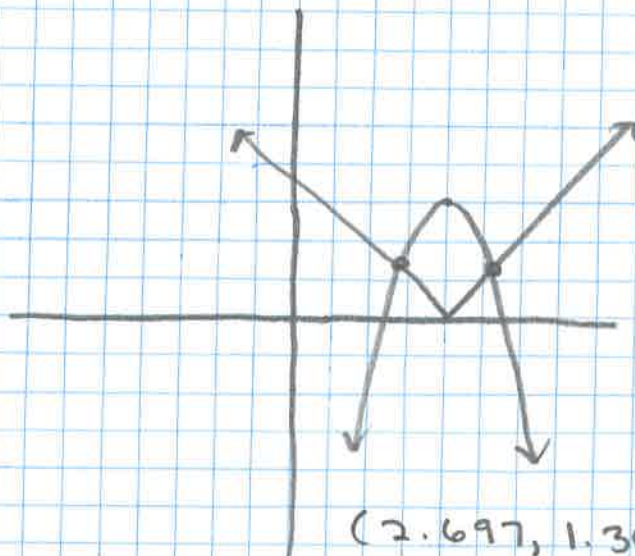
② Find intersection pts on graphing calc.

$$x = .697 \quad \text{and} \quad x = 4.302$$

Ex 2

Using your grapher, find the solutions of the equation:

$$\begin{aligned} & \rightarrow -x^2 + 8x - 13 = |x - 4| \\ & y_1 = -x^2 + 8x - 13 \\ & y_2 = |x - 4| \end{aligned}$$



Ex 3

you try:

find the solutions for

$$x^2 + 2x - 1 = |x + 2| + 2$$

$$x = -3.3 \text{ et } 1.8$$