

- QUADRATIC SIMULTANEOUS EQUATIONS

$$x + 2y = 3 \Rightarrow x = 3 - 2y$$

$$x^2 + 3xy = 10$$

$$(3 - 2y)^2 + 3(3 - 2y)y = 10$$

$$9 - 12y + 4y^2 + 9y - 6y^2 = 10$$

$$2y^2 + 3y + 1 = 0$$

$$y = -\frac{1}{2} \text{ or } -1$$

DONT FORGET TO FIND x VALUES

$$x = 4 \text{ or } 5$$

$$(4, -\frac{1}{2})$$

$$(5, -1)$$

- LINEAR INEQUALITIES

$$-2x - 3 < 5$$

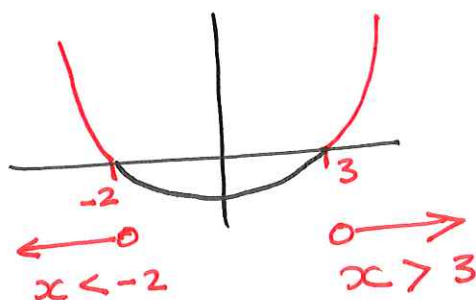
$$-2x < 8$$

$$x > -4$$

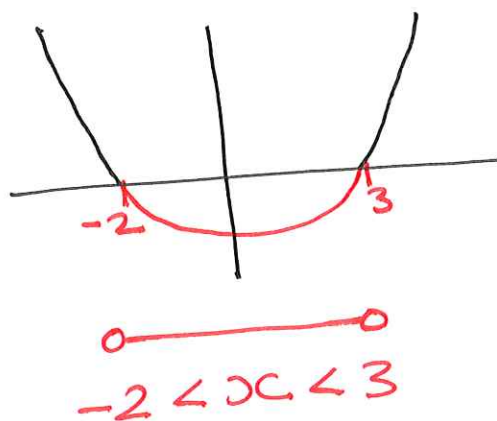
change direction of sign
because multiply x by -1

- QUADRATIC INEQUALITIES

quadratic
INEQUALITY > 0



quadratic
INEQUALITY < 0



- Shading

$>$ $\gg$

Shade above graph

$<$ $\leq$

shade below graph