① $\sqrt{3x-2} = x-4$

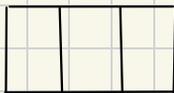② $|x-1| + 10 = 5$

③ $6|1-5x| - 9 = 57$ ④ $\dfrac{|7p+4|}{8} = 3$

⑤ Find the X-intercepts

    a) $y = (x-3)^2 - 4$ b) $y = (x+2)^2 - 4$

④ You want to build a pen as shown below in the shape of a rectangle with two interior divisions.

If you have 2250 m of fencing, what is the maximum area you can enclose?

EX. 1 $|x+2| \geq 2$ remember in last lesson
how $|x+2| = 2$
became $x+2 = \pm 2$?

<u>Two   POSSIBILITIES</u>
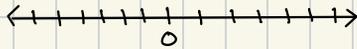
THAT METHOD DOES <u>NOT</u>
WORK WITH INEQUALITIES.

ⓐ $x + 2 \geq 2$ or $-(x+2) \geq 2$

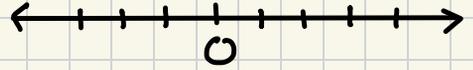* REMEMBER x or ÷ by a negative _____ inequality sign.

GRAPH.

EX. 2 $|3x - 2| - 2 < -3$

EX. 3 $|3x - 2| \geq 0$
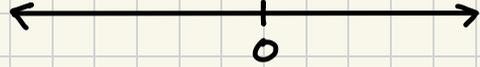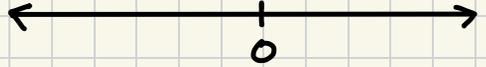
$\boxed{\text{EX. 4}}$ $\quad \sqrt{x+2} > 2$

$\boxed{\text{EX 5}}$ $\quad |2x+3| - 8 > 0$

$\boxed{\text{EX. 6}}$ $\quad \sqrt{x+12} \geq 4$

$\boxed{\text{EX. 7}}$ $\quad \sqrt{x+5} - \sqrt[4]{5-2x} = 0$ $\qquad$ CHECK FOR EXTRANEOUS SOLUTIONS