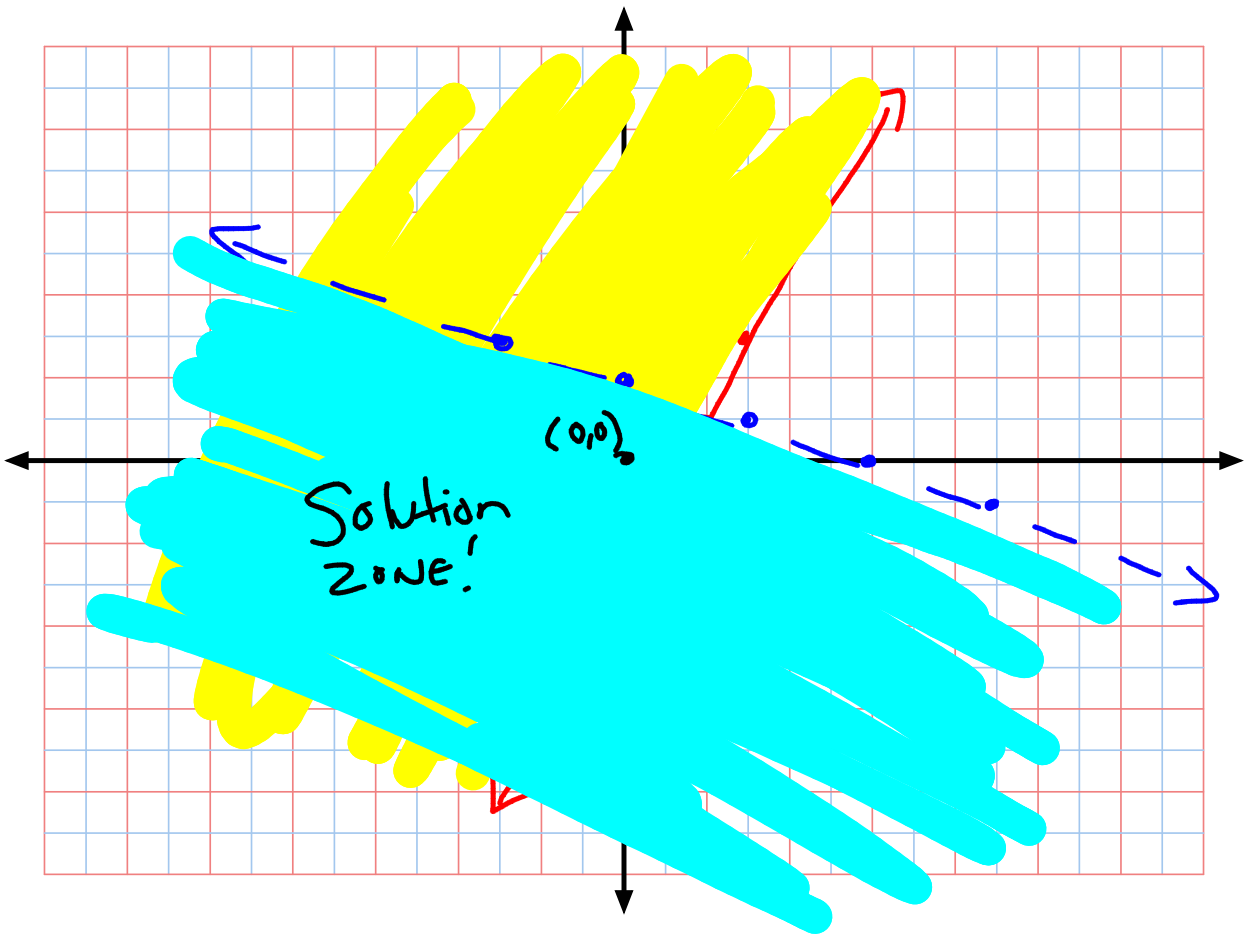


Solving:

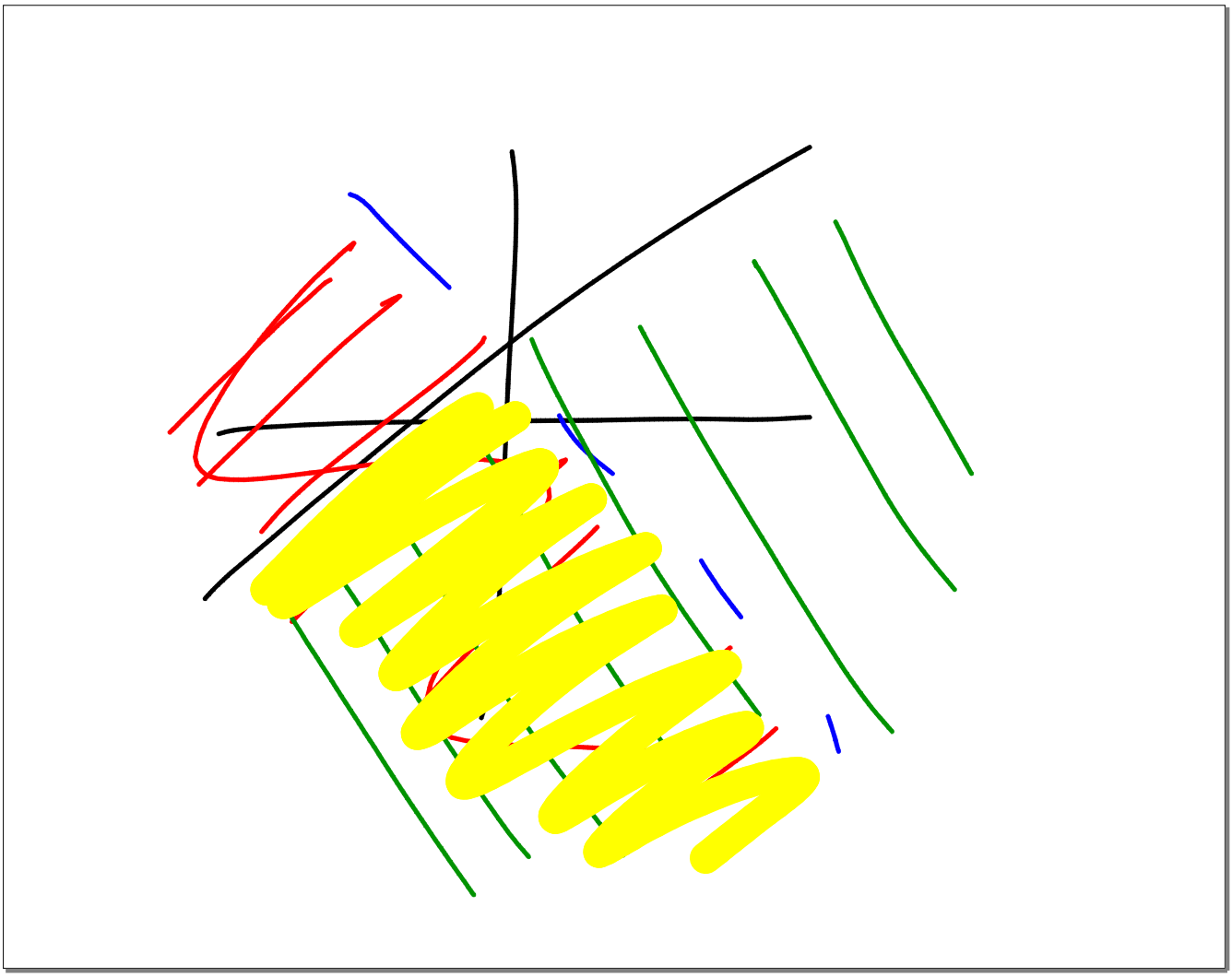
$y \geq 2x - 3$ → Test (0,0) $0 \stackrel{?}{\geq} 2(0) - 3$

$0 \geq -3$ ✓

$\Rightarrow y < -\frac{1}{3}x + 2$ → Test (0,0)

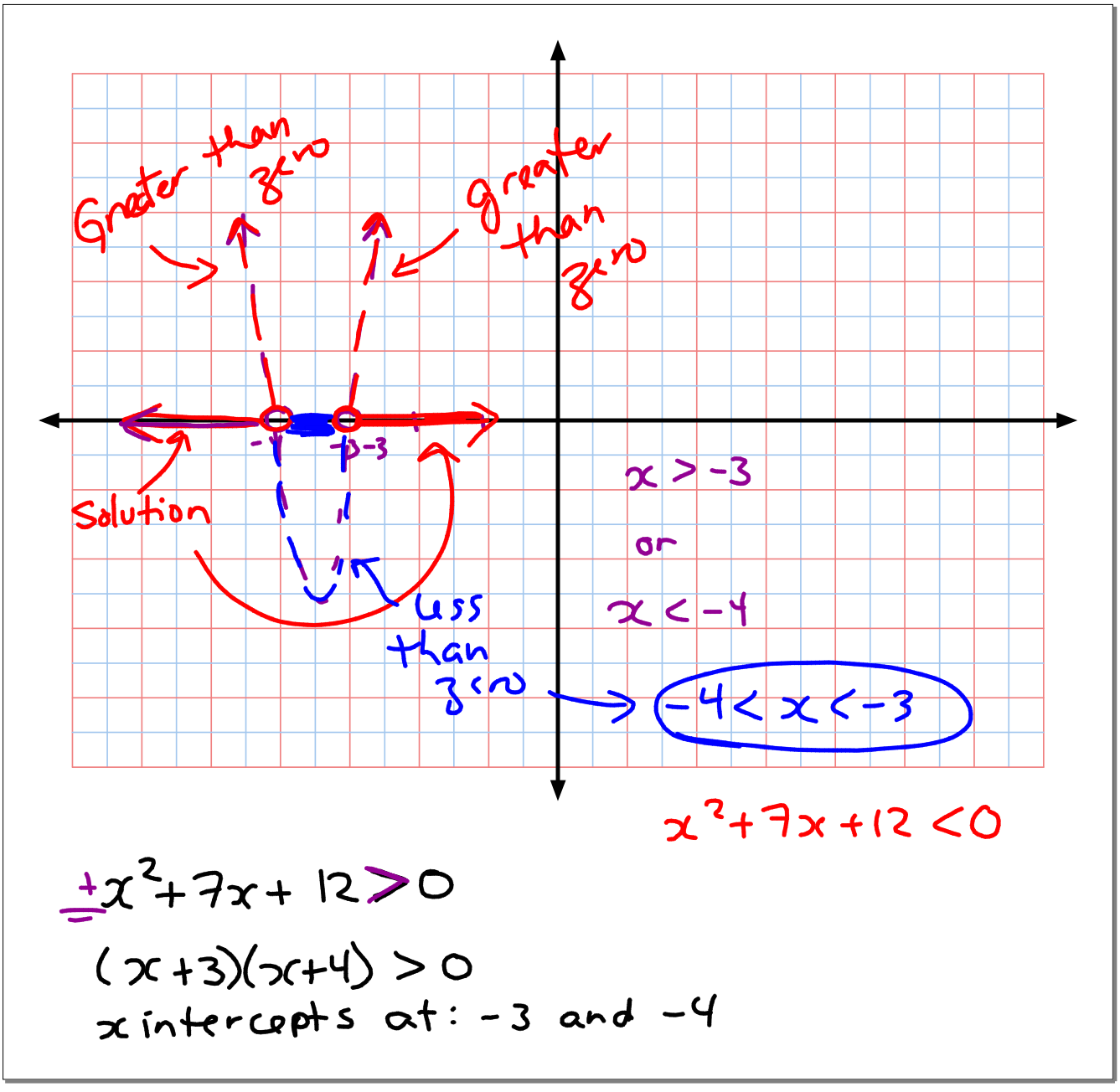
$0 \stackrel{?}{<} -\frac{1}{3}(0) + 2$

$0 < 2$ ✓



Solving quadratic Inequalities

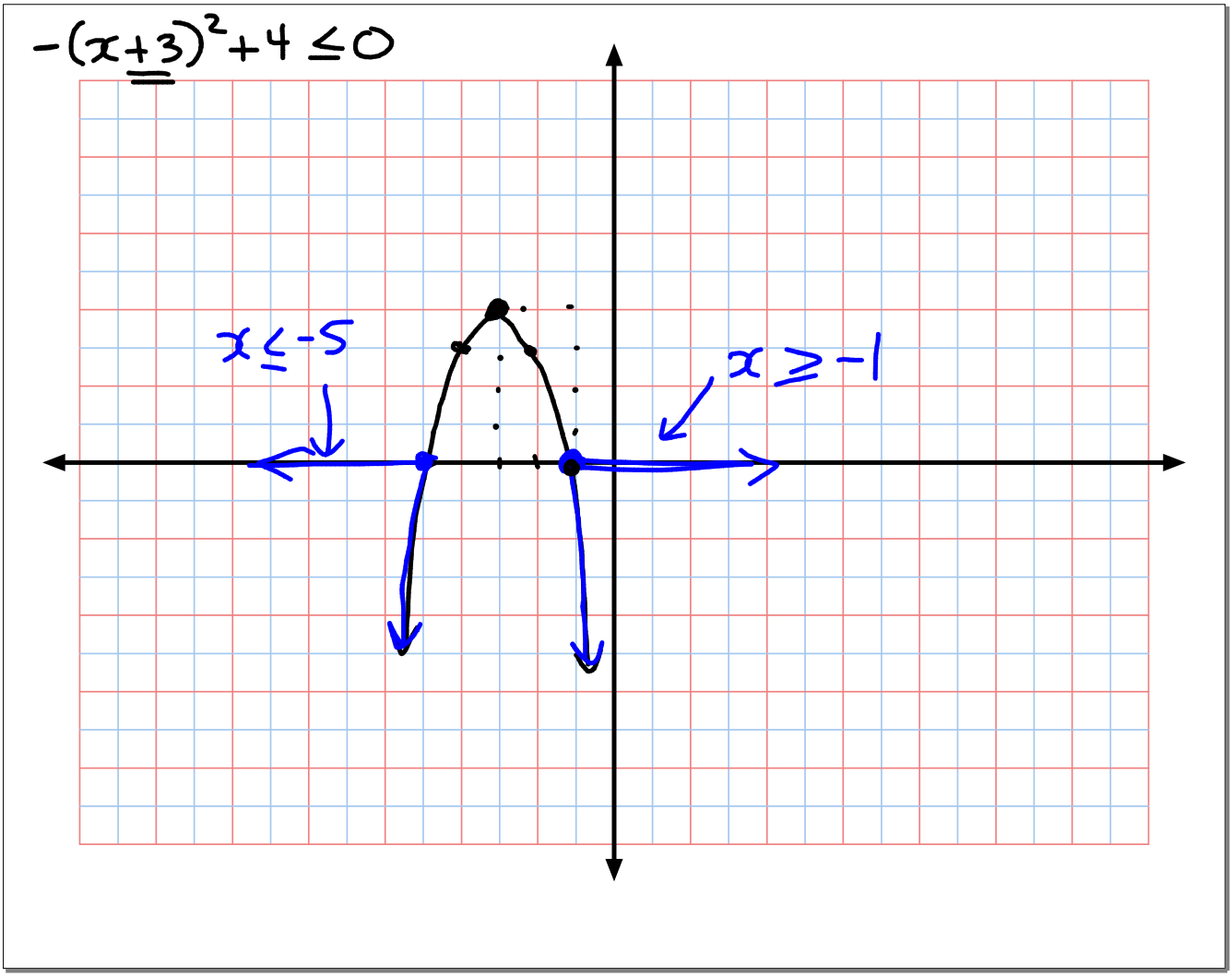
$\Rightarrow$ Graphically OR Algebraically



$\pm x^2 + 7x + 12 > 0$

$(x+3)(x+4) > 0$

x intercepts at: -3 and -4


$-(x+3)^2+4 \leq 0$
$x \leq -5$
$x \geq -1$

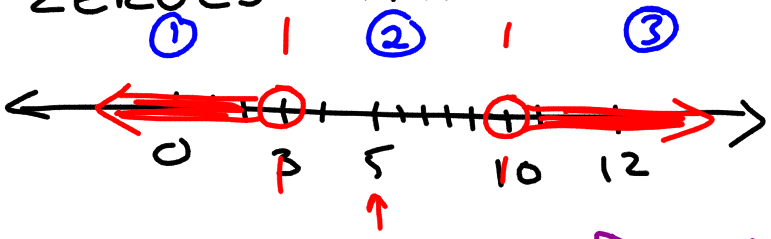
Solving Algebraically

$x^2 - 13x + 30 > 0$

Find the zeroes!

$(x-10)(x-3) > 0$

ZEROES AT $x = +10$ and $x = 3$



Check '0'

$0^2 - 13(0) + 30 > 0$ ✓

$x < 3$

Check $x = 5$

$5^2 - 13(5) + 30 \stackrel{?}{>} 0$

$25 - 65 + 30$

$-10 \stackrel{?}{>} 0$ ✗

Check $x = 12$

$12^2 - 13(12) + 30 \stackrel{?}{>} 0$

$144 - 156 + 30 > 0$ ✓

$x > 10$

WORKSHEET

Linear Systems of Inequalities:

#14-24 Evens.

Solving Quadratic Inequalities

Text: Section 9.2

Pg. 484-485

#1, 4, 5, 6 ← USE EITHER METHOD!