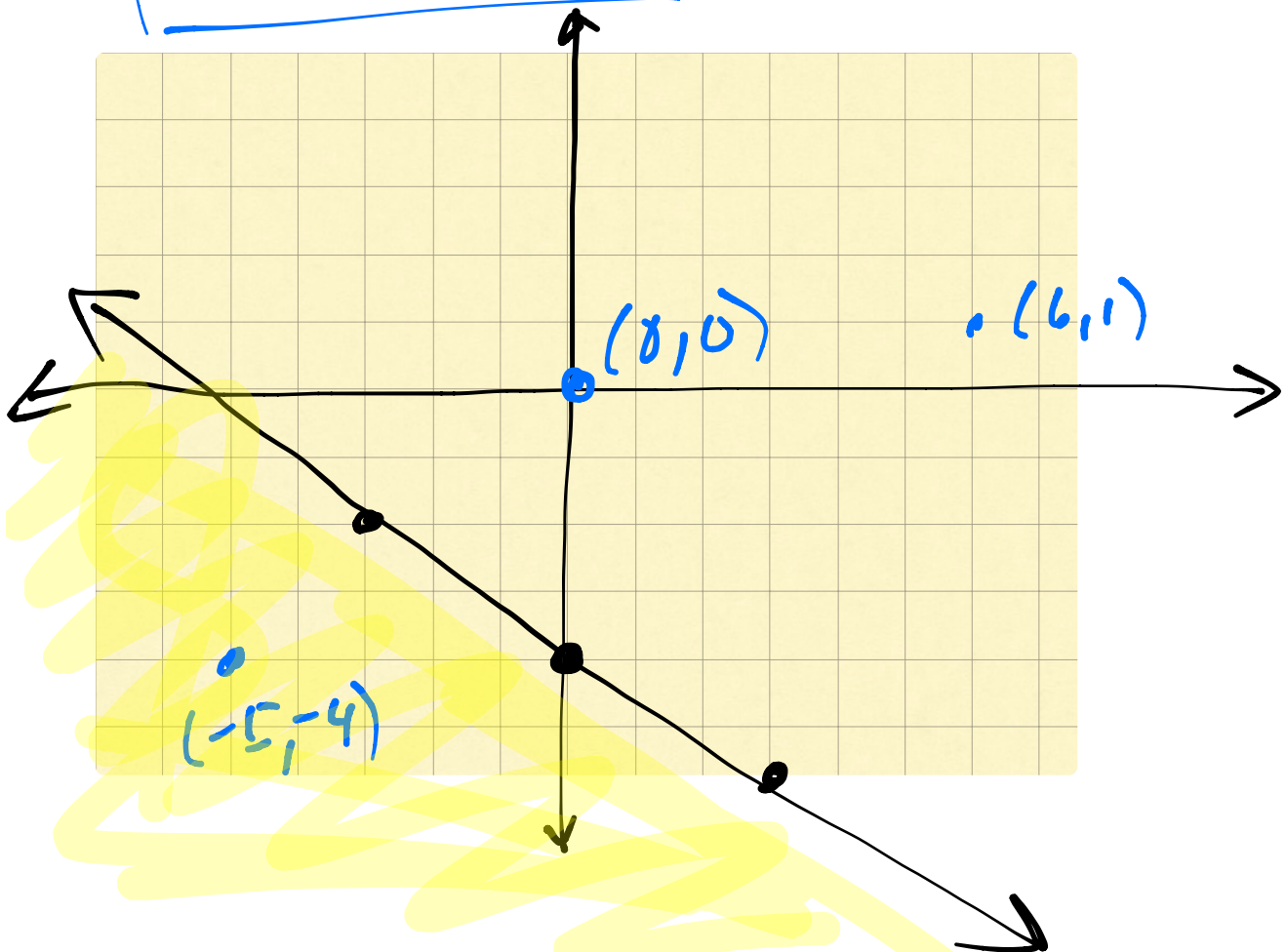In your groups, please discuss section 2.7 and graph:

1. $2x + 3y > 12$

2. $y <= -2/3\ x - 5$

$$y \leq -\frac{2}{3}x - 5$$

Use graph paper and a Straight edge!

$(0,0)$

$(6,1)$

$(-5,-4)$

$$y \le -\frac{2}{3}x - 5$$

Plug in $(0,0)$ and determine if the statement is T or F.

Is $0 \le -\frac{2}{3} \cdot 0 - 5$?

$0 \le -5$? No. False.

Shade the side that does NOT contain $(0,0)$.

$2x + 3y > 12$

$x\text{-int}: y = 0$

$2x + 3 \cdot 0 = 12$

$2x = 12$

$x = 6$

$(6, 0)$
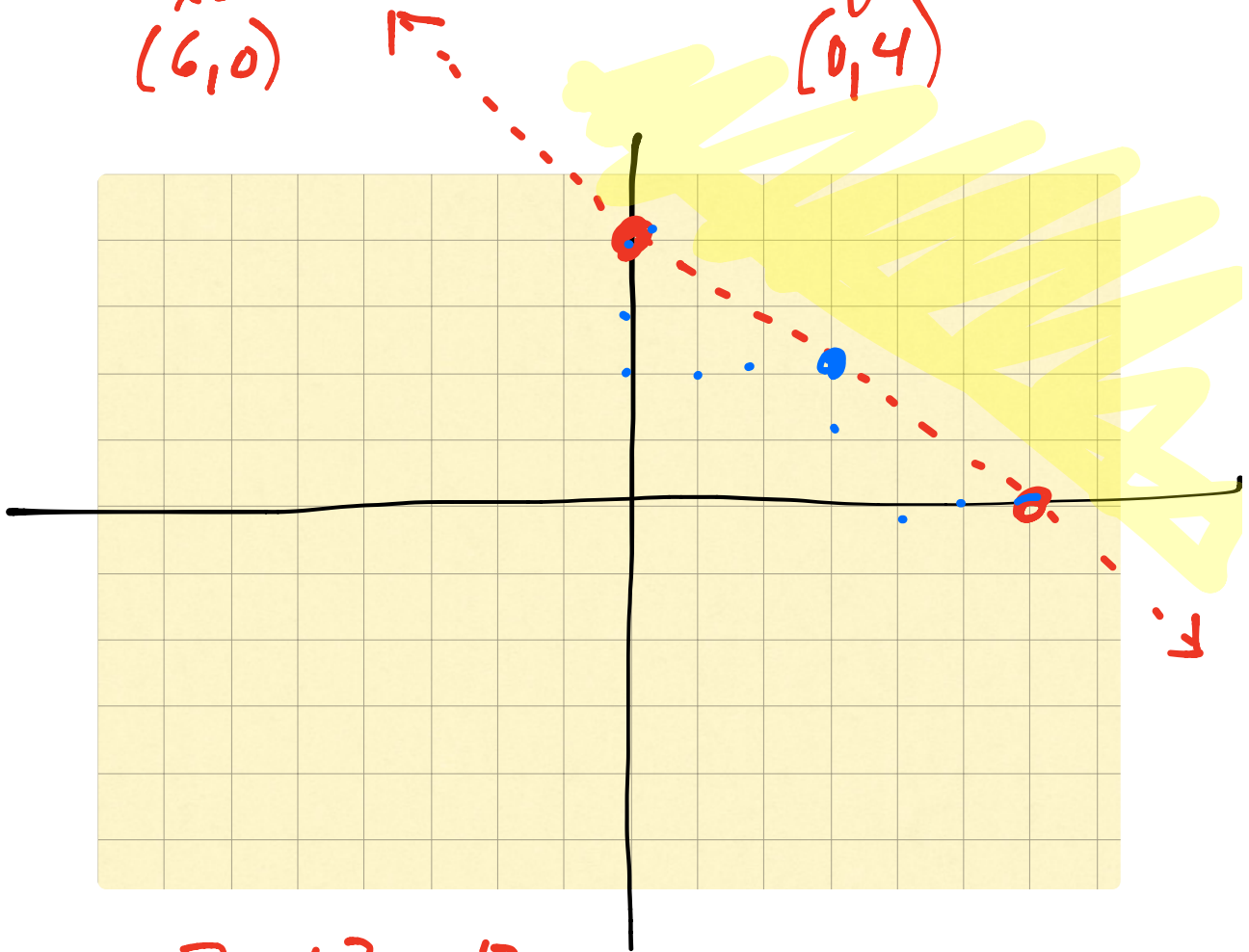
$y\text{-int}: x = 0$

$2 \cdot 0 + 3y = 12$

$3y = 12$

$y = 4$

$(0, 4)$

$2x + 3y > 12$

Test $(0,0)$:

$$2 \cdot 0 + 3 \cdot 0 > 12 \,?$$

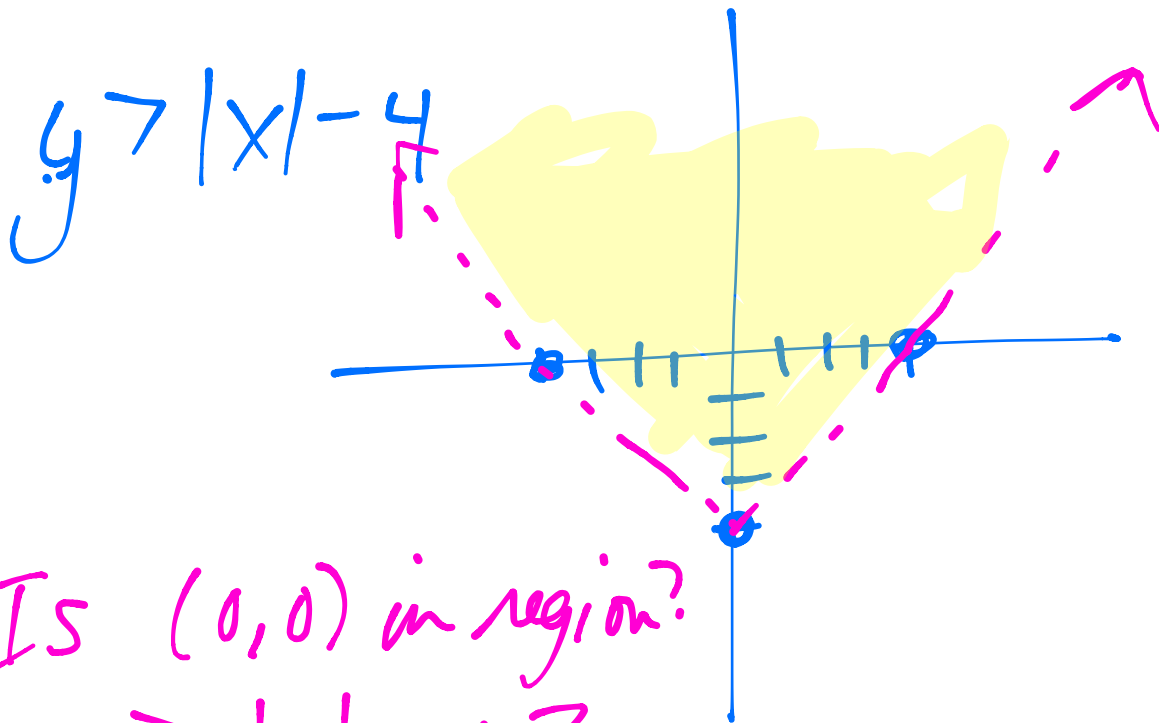Is $0 > 12$? No! Shade the side that does **not** contain $(0,0)$.

$$2x + 3y > 12$$

$$\frac{3y}{3} > \frac{-2x}{3} + \frac{12}{3}$$

$$y > \frac{-2}{3}x + 4$$

Test $(0,0)$

Is $0 > \frac{-2}{3} \cdot 0 + 4$?

$0 > 4$? No.

$y > |x| - 4$

Is (0,0) in region?

$0 > |0| - 4$?

$0 > -4$? Yes! Shade the region that contains (0,0).

p. 98: 13-25 odd
GRAPH PAPER—
use SE!

Check as you go!

p. 100: 1-54 → Ch 2 Review