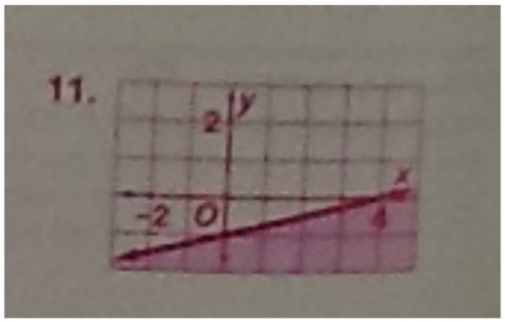
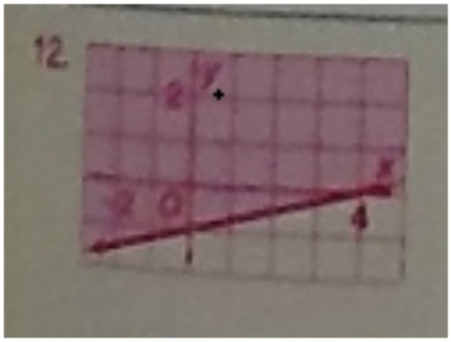
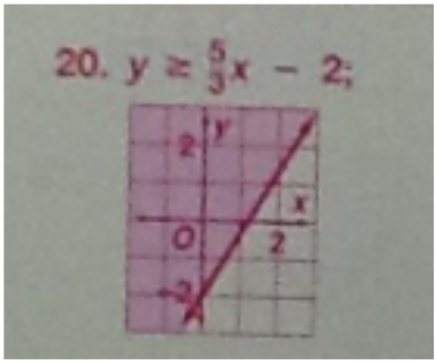
Lesson 6-5B - Linear Inequalities

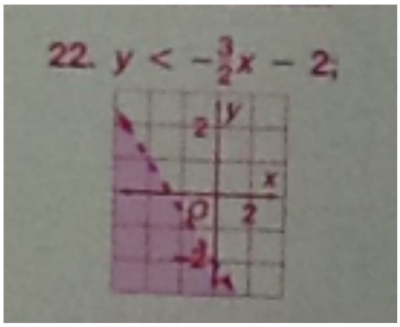
Due Today: **p. 305 #1-9 odd; #11-12; 20, 22**

1) no
3) yes
5) no
7) A
9) B









Due Thursday: p. 305 #2-8 even; #14-17 all.

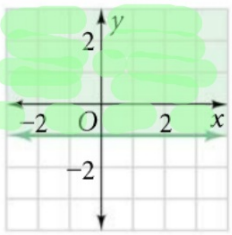
Determine whether point P is a solution of the linear inequality.

1. $y \leq -2x + 1; P(2, 2)$ **2.** $x < 2; P(1, 0)$ **3.** $y \geq 3x - 2; P(0, 0)$

4. $y > x - 1; P(0, 1)$ **5.** $y \geq -\frac{2}{5}x + 4; P(0, 0)$ **6.** $y > \frac{5}{3}x - 4; P(0, 1)$

Choose the linear inequality that describes each graph.

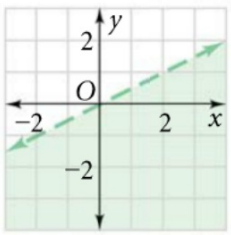
7.



A. $y \geq -1$

B. $y \leq -1$

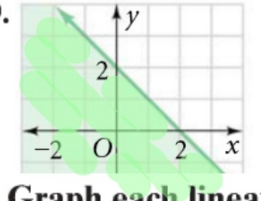
8.



A. $y > \frac{1}{2}x$

B. $y < \frac{1}{2}x$

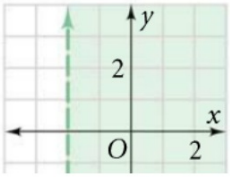
9.



A. $y \geq -x + 2$

B. $y \leq -x + 2$

10.



A. $x > -2$

B. $x < -2$

Graph each linear inequality.

11. $y \leq \frac{1}{4}x - 1$ **12.** $y \geq \frac{1}{4}x - 1$ **13.** $y < -4x - 1$ **14.** $y \geq 4x - 1$

15. $y < 5x - 5$ **16.** $y \leq \frac{2}{5}x - 3$ **17.** $y \leq -3x$ **18.** $y \geq -\frac{1}{2}x$

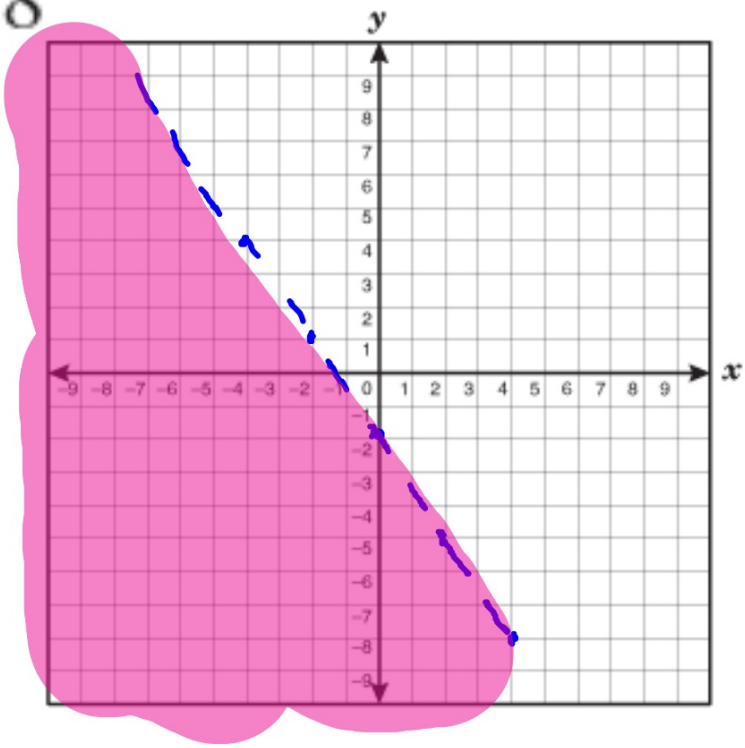
Write each linear inequality in slope-intercept form. Then graph the inequality.

19. $2x - 3y \geq 7$ **20.** $5x - 3y \leq 6$ **21.** $4x - 6y \geq 16$ **22.** $-4y - 6x > 8$

22. $-4y - 6x > 8$

$\frac{-4y}{-4} > \frac{6x}{-4} + \frac{8}{-4}$

$y < -\frac{3}{2}x - 2$



1) Solve the system using elimination

$-2(-2x + 3y = 33)$ $\quad 4x - 6y = -66$

$3(4x + 2y = -10)$ $\quad 12x + 6y = -30$

$16x = -96$

$x = -6$

Boundary


OCEAN
United States
of America
Gulf of Mexico
Mexico
Cuba
Jamaica
Belize
Honduras
LEGEND
International Boundary

Review three steps for graphing inequalities

1) Transform into slope-intercept $y=mx+b$.

2) Graph the boundary line

3) Shade

Comic Strip for $3x + 4y \leq 20$

Directions: Draw a comic strip that shows **every step** in the process of graphing the equation **$3x + 4y \leq 20$**. The last panel should show the completed graph. Note: you don't need to use all nine blank panels, but you need to show every part of the process.