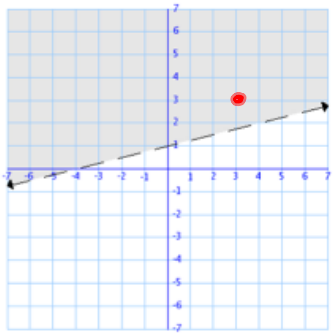
Entrance Ticket

Learning Target: I can graph linear inequalities in slope intercept form.

STEP 1: Pick a point in the shaded region
STEP 2: Plug that point into the inequality and simplify
STEP 3: Determine the appropriate inequality sign

$y \square \frac{1}{4}x + 1$



STEP 1: (3,3)

STEP 2:

$3 \square \frac{1}{4}(3)+1$

$3 \square \frac{3}{4}+1$

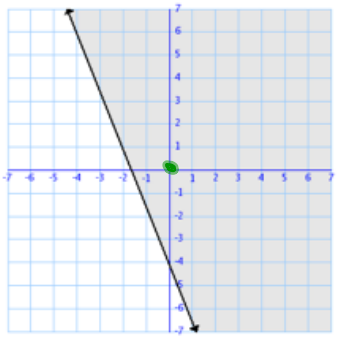
$3 \square 1.75$

STEP 3:

$3 > 1.75$

↑ dashed line

$\frac{-5}{2}x - 4 \square y$



STEP 1: (0,0)

STEP 2:

$\frac{-5}{2}(0) - 4 \square 0$

$-4 \square 0$

STEP 3:

$-4 \leq 0$

↑ solid line

Learning Target: I can graph linear inequalities in standard form and slope-intercept form.

1.1C Graphing Linear Inequalities in Standard Form and Slope-Intercept Form

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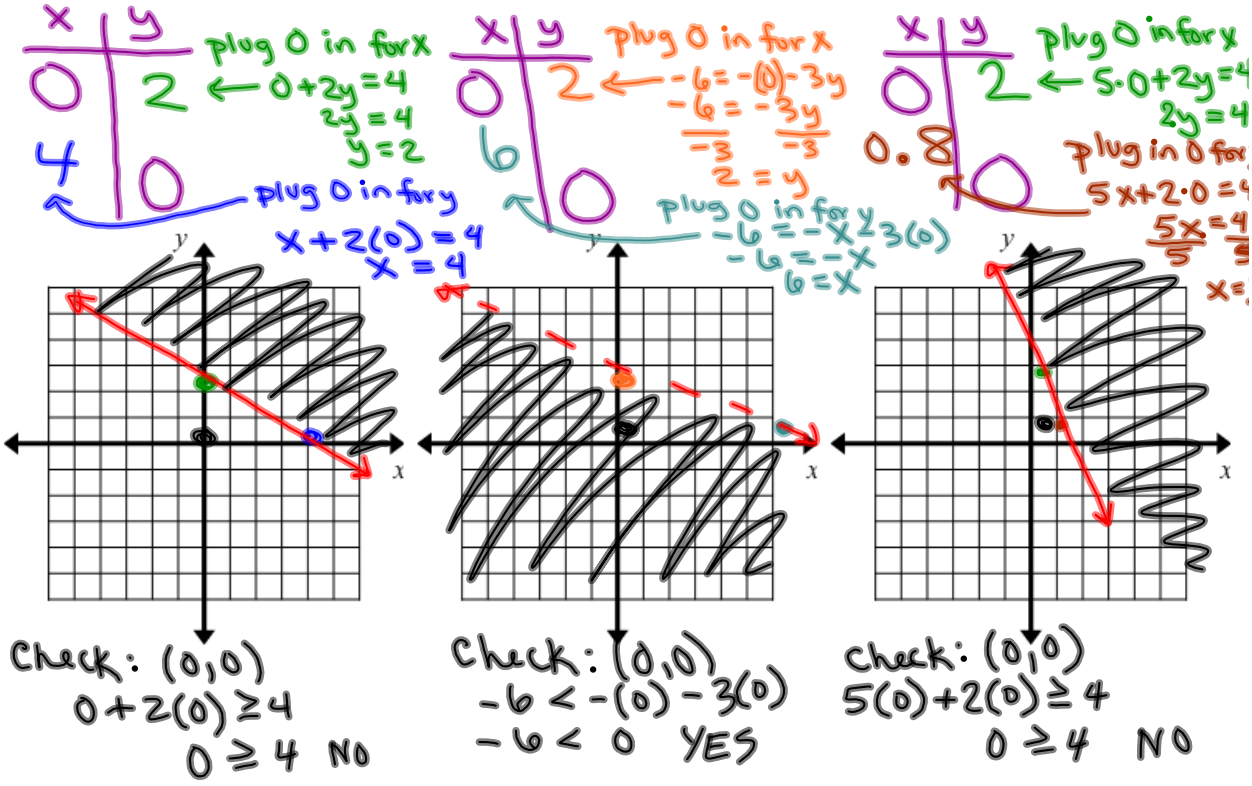
Section 1.1C

There are a couple of options when plotting inequalities that have related equations in standard form ($ax + by = c$). One method is to identify the x- and y-intercepts to graph the boundary line or, another method would be to solve the equation for y, rewriting the equation into slope-intercept form. Sometimes, the related equation for the inequality may be in the slope-intercept form ($y = mx + b$) to start and the y-intercept and slope can then be used to plot points to graph the boundary line. Once we graph the boundary line, determine which region to shade by testing some ordered pairs within each half-plane or, in many cases, by looking at the inequality.

*STANDARD FORM

8) Graph the following inequalities.

a) $x + 2y \geq 4$ (solid) **b)** $-6 < -x - 3y$ (dashed) **c)** $5x + 2y \geq 4$ (solid)



HOMEWORK:

UNIT 1 Part A: 3-Tri Intermediate Algebra

Name: _____ **Period:** ____

Use this guide to help you evaluate where you are at in this chapter, and identify areas that you need extra help in.

☺=Proficient (you are awesome at this) 😐=Middle (you need some improvement) ☹=Not Proficient (HELP!)

Intermediate Algebra Unit 1 : Linear Programming					
Date Covered	**LT#**	**Learning Target (LT)** (What you should know)	**Practice Problems**	**Number of Test Questions/Points**	**Self-Evaluation** (Do you know it?)
	1.1A	I Can Demonstrate Understanding of How to Represent a Region on a Graph with an Inequality	1.1 A 1-8 (P-1)	# of Questions = Points =	☹ 😐 ☺
	1.1B	I Can Demonstrate Understanding of How to Represent a Region on a Graph with an Inequality	1.1B 1-6 (P-5)	# of Questions = Points =	☹ 😐 ☺
			1.1B 7-12 (P-6)		
9/22	1.1C	I Can Demonstrate Understanding of How to Represent a Region on a Graph with an Inequality	1.1C 1-8 (P-9)	# of Questions = Points =	☹ 😐 ☺
			1.1C 9-16 (P-11)		

CORRECTIONS

TO HW DIRECTIONS...

#9 – 12: Graph each inequality.

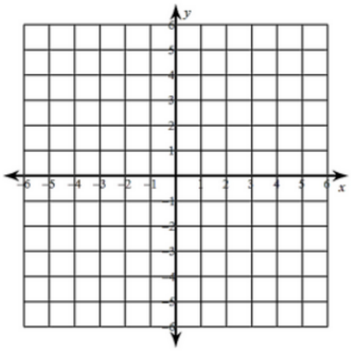
9) $2x + 3y \geq 12$

x	0	
y		

Tables can be used to record x- and y-intercepts...

Easier if drawn like THIS:

x	y
0	
	0



#13 – 16: For each inequality and graph, pick a point and use it to determine which half-plane should be shaded, and then shade the correct half-plane.

13) $-2x + 5y \square 15$

Directions don't make sense...

INSTEAD: Test a point to choose the correct inequality symbol!