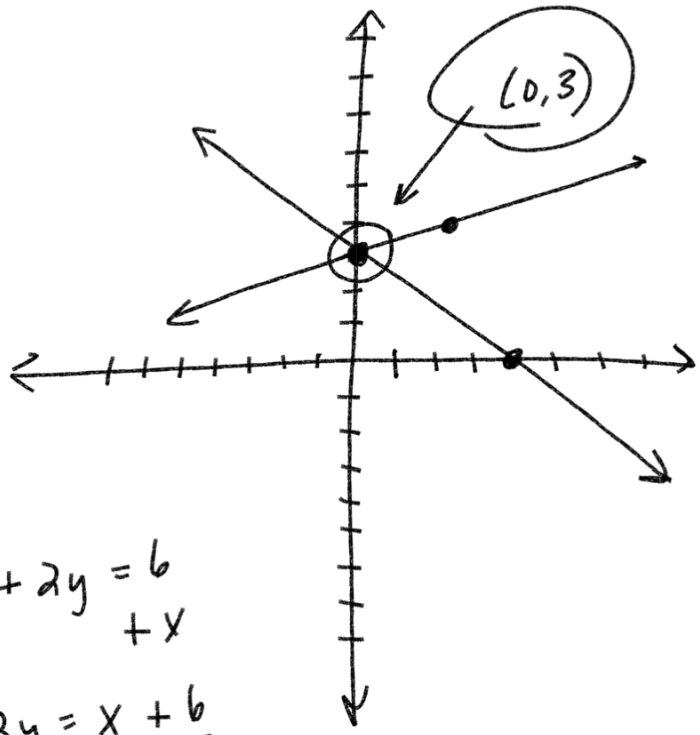
TH-A2 Algebra 2 Week 17

$3x + 4y = 12$

$-x + 2y = 6$



$3x + 4y = 12$
$-3x \quad -3x$

$\frac{4y}{4} = \frac{-3x}{4} + \frac{12}{4}$

$y = -\frac{3}{4}x + 3$

$-x + 2y = 6$
$+x \quad +x$

$\frac{2y}{2} = \frac{x}{2} + \frac{6}{2}$

$y = \frac{1}{2}x + 3$

$3x + 4y = 12$

$\rightarrow -x + 2y = 6$

$-2y \quad -2y$

$-x + 2y = 6$

$-x + 2(3) = 6$

$-x + 6 = 6$

$-6 \quad -6$

$-x = 0$

$x = 0$

$\frac{-x}{-1} = \frac{-2y}{-1} + \frac{6}{-1}$

$x = 2y - 6$

$3(2y - 6) + 4y = 12$

$6y - 18 + 4y = 12$

$10y - 18 = 12$

$+18 \quad +18$

$\frac{10y}{10} = \frac{30}{10}$

$y = 3$

(0,3)

$2x + 7y = -8$

$-2(x - 4y = 11)$

$2x + 7y = -8$

$-2x + 8y = -22$

$15y = -30$

$\frac{15y}{15} = \frac{-30}{15}$

$y = -2$

$x - 4y = 11$

$x - 4(-2) = 11$

$x + 8 = 11$

$-8 \quad -8$

$x = 3$

$(3, -2)$

$y < 3x + 2$

$(y \leq -2x + 1)$

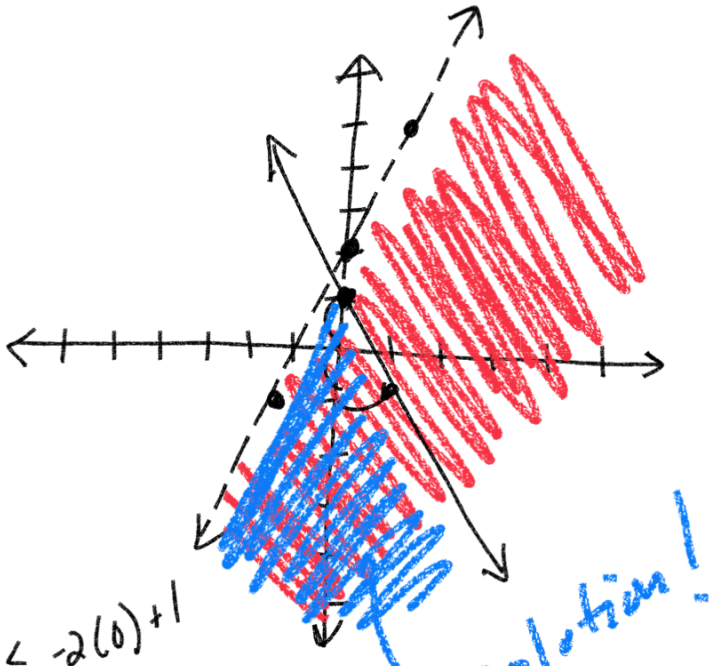
(0,0) true!

$0 < 3(0) + 2$

$0 < 2$

$0 \leq -2(0) + 1$

$0 \leq 1$ true



solution!

$$\overset{4}{x} + \overset{2}{y} \leq 6$$

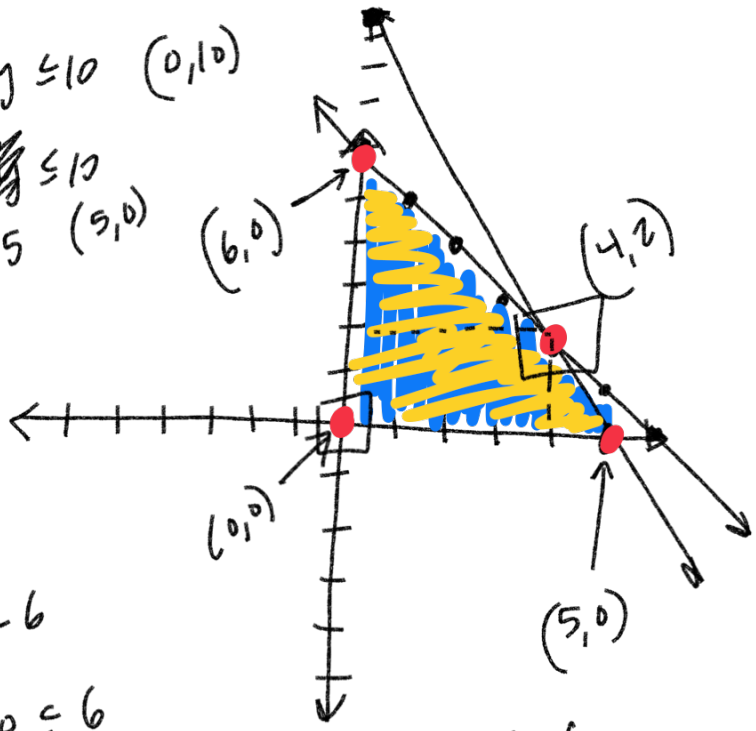
$$\overset{4}{2x} + \overset{2}{y} \leq 10$$

$x \geq 0$
$y \geq 0$ } quadrant 1

~~x~~ $+ y \leq 10$ $(0,10)$

$2x$ ~~$+ y$~~ ≤ 10

$x = 5$ $(5,0)$



$y = -x + 6$

$(0,0)$ $0 + 0 \leq 6$

$0 \leq 6$

$(4,2)$ $4 + y = 6$ $-4 \quad -4$

$y = 2$ $x = 4$

$x + y = 6$

$-2x + y = 70$

$-x = -4$

$x = 4$

Max

$P = 4x + y$

Max

$4x + y$

$(0,0)$	$4(0) + 0 = 0$
$(5,0)$	$4(5) + 0 = 20$
$(0,6)$	$4(0) + 6 = 6$
$(4,2)$	$4(4) + 2 = 18$

$(5,0)$

① $2x - 3y + z = -3$

② $x - 5y + 7z = -11$

③ $-10x + 4y - 6z = 28$

① $2x - 3y + z = -3$

② $-2(x - 5y + 7z = -11)$

$2x - 3y + z = -3$

$-2x + 10y - 14z = 22$

$7y - 13z = 19$

$7y - 13z = 19$

$7(-1) - 13z = 19$

$-7 - 13z = 19$

$+7 \quad +7$

$\frac{-13z}{-13} = \frac{26}{-13}$

$z = -2$

$(-2, -1, -2)$

Solve and graph

① $5(2x - 3y + z = -3)$

③ $-10x + 4y - 6z = 28$

$10x - 15y + 5z = -15$

$-10x + 4y - 6z = 28$

$-11y - z = 13$

$7y - 13z = 19$

$-13(-11y - z = 13)$

$7y - 13z = 19$

$143y + 13z = -169$

$\frac{150y}{150} = \frac{-150}{150}$

$y = -1$

$2x - 3y + z = -3$

$2x - 3(-1) + (-2) = -3$

$2x + 3 - 2 = -3$

$2x + 1 = -3$

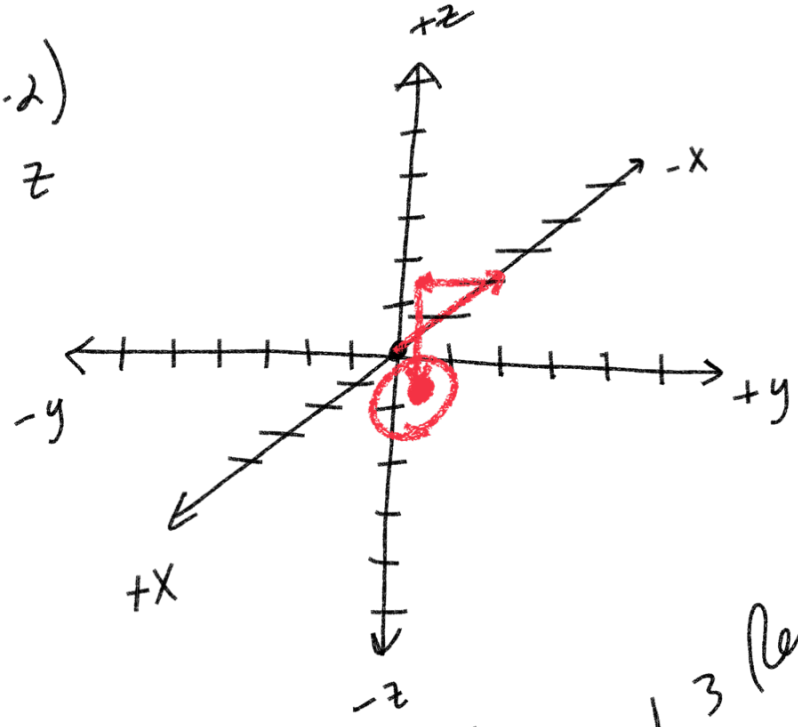
$-1 \quad -1$

$\frac{2x}{2} = \frac{-4}{2}$

$x = -2$

(-2, -1, -2)

x y z



HW

Ch 3 Pre-Test

Optional HW 17 Ch 3 Review

No Quiz 17

Actual Ch 3 Test (Feb 4th)

HW/Quiz 15 due tonight

HW/Quiz 16 due Jan 29th