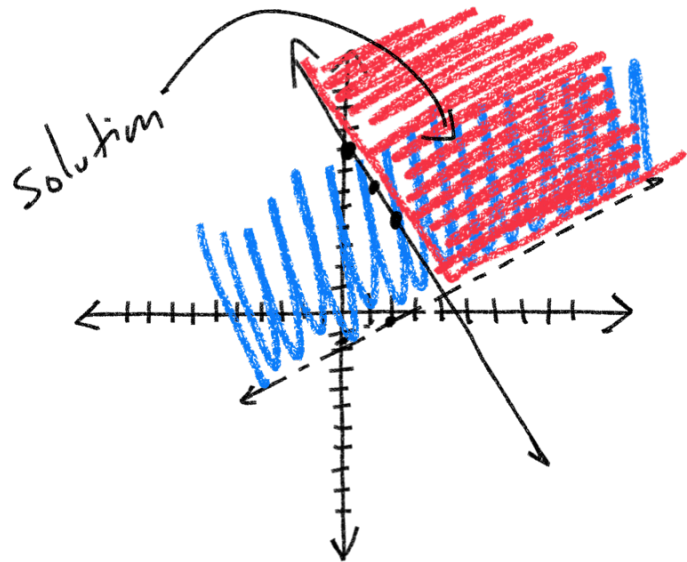


$x - 2y < 3$ ← dashed

$2x + y \geq 8$



$x - 2y < 3$
 $-x$

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

$y > \frac{1}{2}x - \frac{3}{2}$

$x - 2y < 3$

$0 - 2(0) < 3$
 $0 < 3$

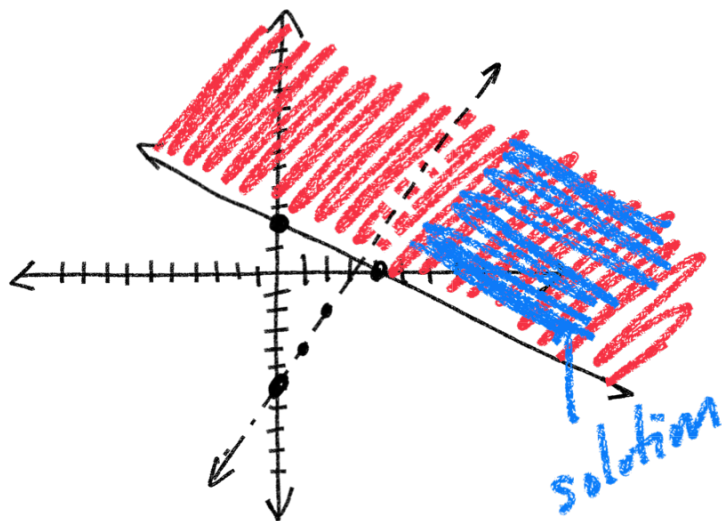


$y \geq -2x + 8$
 $0 \geq -2(0) + 8$
 $0 \geq 8$

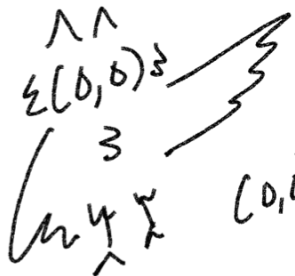
$x + 2y \geq 4$

$2x - y > 6$

$(0,0)$
 $2(0) - 0 > 6$
 $0 > 6$ false



$x = 0$
 $0 + 2y \geq 4$
 $\frac{2y}{2} \geq \frac{4}{2}$
 $y \geq 2$
 $(0, 2)$



$0 + 2(0) \geq 4$

$y = 0$
 $x + 0 \geq 4$
 $x \geq 4$
 $(4, 0)$

$0 \geq 4$
 false

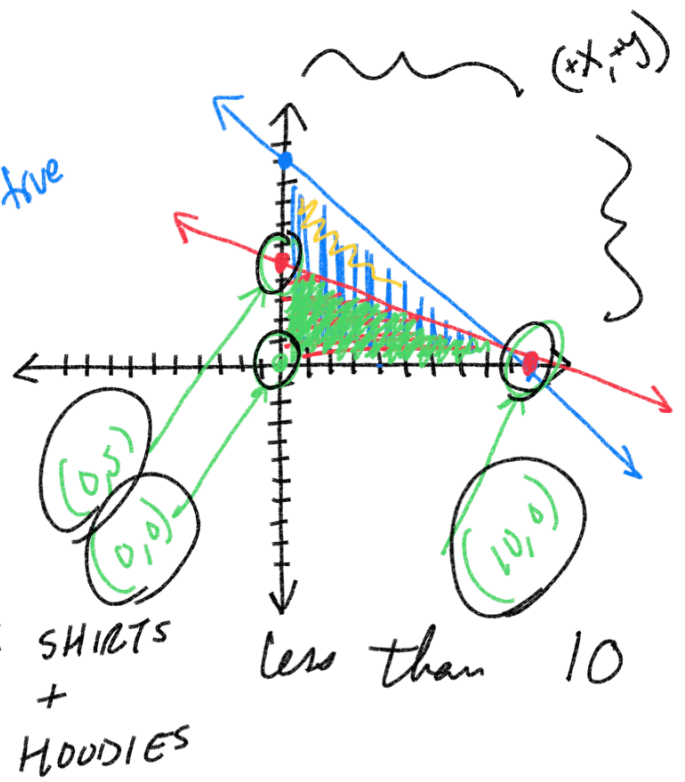
$2x - y > 6$
 $-\frac{6}{-1} + y > 6$
 $6 + y > 6$
 $[2x - 6 > y]$
 $y < 2x - 6$

3-4 Linear Programming

$$\begin{cases} x + y \leq 10 \\ 10x + 20y \leq 100 \\ x \geq 0 \\ y \geq 0 \end{cases}$$

Quadrant I

$(0,0)$
 $0 + 0 \leq 10$ true
 $0 \leq 10$



Max
 $P = 15x + 30y$

$x =$ TOMT shirts
 $y =$ TOMT Hoodies

$(0,0)$ $10(0) + 20(0) \leq 100$

$0 \leq 100$ true

$x=0$ $y=5$
 $10x + 20y \leq 100$

$x=10$ $y=0$
 $10x + 20y \leq 100$

$P = 15x + 30y$

- $(0,5)$
- $(0,0)$
- $(10,0)$

$P = 15(0) + 30(5)$

$P = \$150$

$P = 15(0) + 30(0)$

$P = \$0$

$P = 15(10) + 30(0)$

$= 150 + 0$

$P = \$150$

HW

No HW or Quiz 14

Make sure you do

HW 13 and Quiz 13

~ due Dec 26th