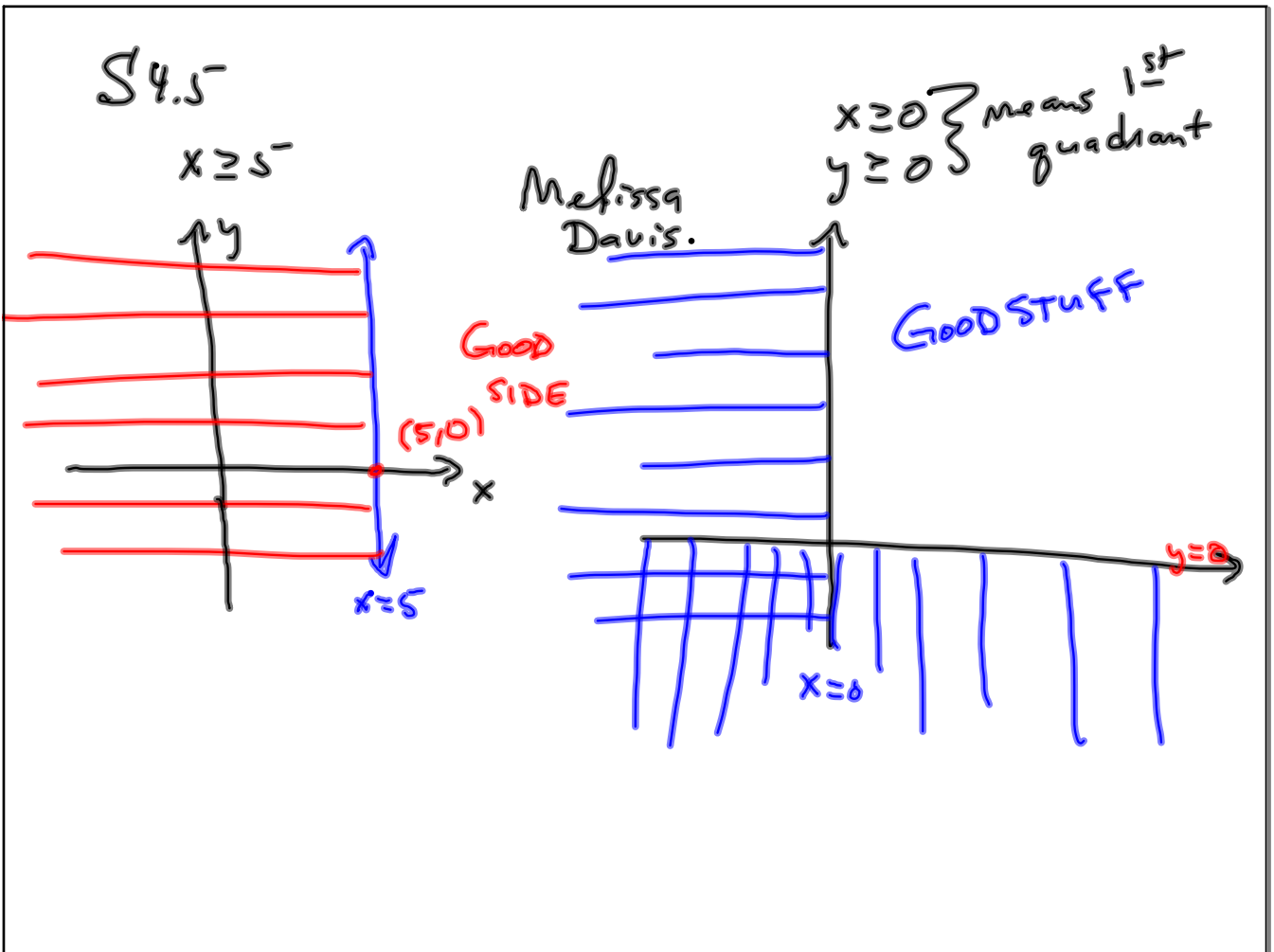


Test 1 post-quiz had 35 pts on it.

Your test 1 score is

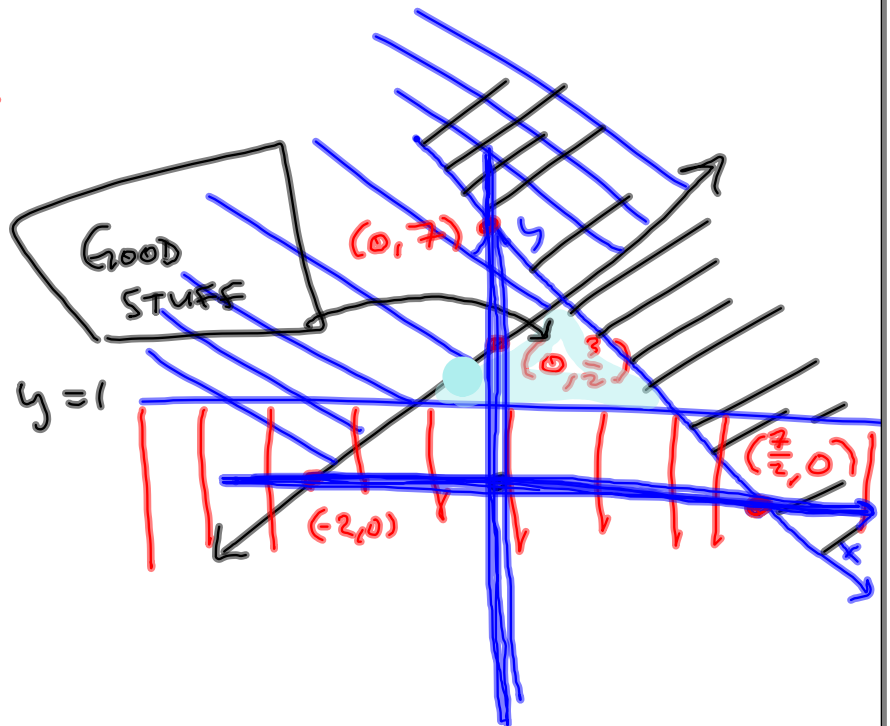
$$\left(\frac{\text{quiz}}{35}\right)(15) + \text{TEST 1}$$



$$3x - 4y \geq -6$$

$$2x + y \leq 7$$

$$y \geq 1$$



$(0,0)$:
 $0 \geq -6$? Yes
 $(0,0)$ GOOD

$$2x + y \leq 7$$

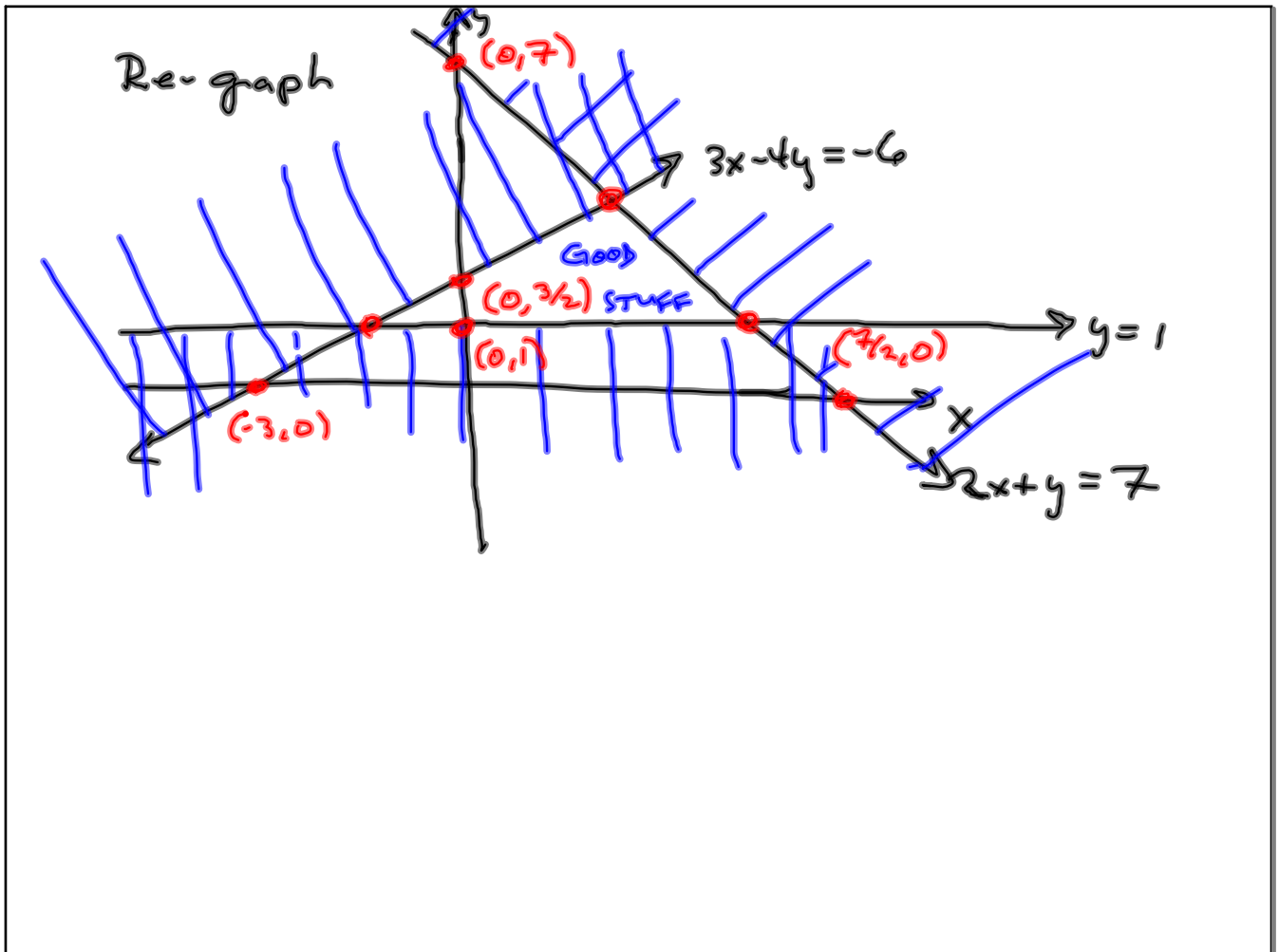
x	y
0	7
$3\frac{1}{2}$	0

$0 \leq 7$? Yes
 $(0,0)$ GOOD

$$3x - 4y = -6$$

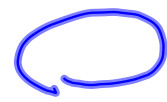
x	y
0	$\frac{3}{2}$
-2	0

$-4y = -6 \quad y = \frac{6}{4} = \frac{3}{2}$
 $3x = -6$



\$4.2

#55-32 solve each system



$$\begin{matrix} E1 & x & -y & +z & = & -4 \\ E2 & 3x & +2y & -z & = & 5 \\ E2 & -2x & +3y & -z & = & 15 \end{matrix}$$

New System

$$\begin{matrix} x - y + z = -4 \\ y + z = 7 \\ 5y - 4z = 17 \end{matrix}$$

$$\begin{matrix} -3E1 + E2 \\ -3E1: -3(x - y + z = -4) \\ -3E1 \quad -3x + 3y - 3z = 12 \\ E2 \quad 3x + 2y - z = 5 \\ \hline -3E1 + E2: 5y - 4z = 17 \end{matrix}$$

$$\begin{matrix} 2E1 + E3 \\ 2E1: 2(x - y + z = -4) \\ 2E1 \quad 2x - 2y + 2z = -8 \\ E3 \quad -2x + 3y - z = 15 \\ \hline 2E1 + E3 \quad y + z = 7 \end{matrix}$$

Now solve the 2x2 piece:

$$\begin{matrix} E1 & y + z = 7 \\ E2 & 5y - 4z = 17 \end{matrix}$$

$$\begin{matrix} -5E1 + E2: \\ -5E1: -5(y + z = 7) \\ -5E1 \quad -5y - 5z = -35 \\ E2 \quad 5y - 4z = 17 \\ \hline -5E1 + E2 \quad -9z = -18 \end{matrix}$$

New System

$$\begin{matrix} x - y + z = -4 \\ y + z = 7 \\ \boxed{z = 2} \end{matrix}$$

$$\begin{matrix} y + z = y + 2 = 7 \\ \boxed{y = 5} \end{matrix}$$

$$\begin{matrix} x - y + z = x - 5 + 2 = -4 \\ x - 3 = -4 \\ \boxed{x = -1} \end{matrix}$$

$z = 2$

$(x, y, z) = (-1, 5, 2)$

Michelle

Robin van Haaren

$(x, y, z) \in \{(-1, 5, 2)\}$

$$\begin{aligned}x + 2y - 3z &= 4 \\ -2x - 4y + 6z &= -8 \\ 4x + 8y - 12z &= 16\end{aligned}$$

$$\begin{array}{r}2E1 + E2 \\ 2E1: 2(x + 2y - 3z = 4) \\ 2E1 \quad 2x + 4y - 6z = 8 \\ E2 \quad -2x - 4y + 6z = -8 \\ \hline 0 = 0\end{array}$$

$$\begin{array}{r}-4E1 + E3 : \\ 0 = 0 \text{ too!} \end{array}$$

$$\begin{aligned}x + 2y - 3z &= 4 \\ 0 &= 0 \\ 0 &= 0\end{aligned}$$

$$(x, y, z) \in \left\{ (x, y, z) \mid x + 2y - 3z = 4 \right\} \nearrow$$

$$x = -2y + 3z + 4$$

More professional way:

$$\left\{ (-2y + 3z + 4, y, z) \mid y, z \in \mathbb{R} \right\}$$