

Graph & find Co-ordinates of vertices

$$\begin{cases} x+y < 1 \\ 2x-y < 4 \\ x \geq -2 \end{cases}$$

$$\begin{array}{r|l} x & y \\ \hline 0 & 1 \\ 1 & 0 \end{array} \quad 0+0 < 1 \quad \text{true}$$

$$2(0)-0 < 4 \quad \text{true}$$

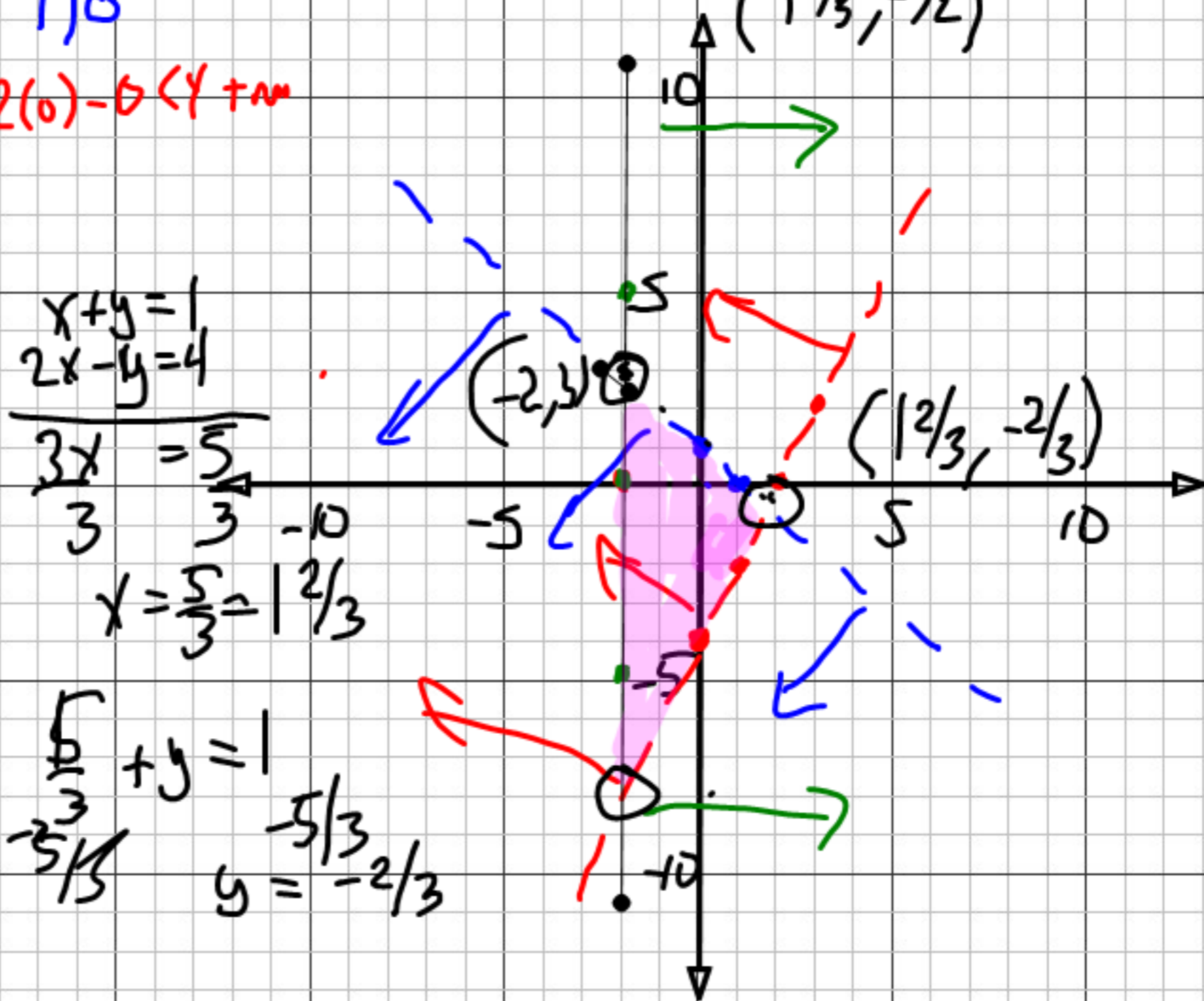
$$\begin{array}{r} 2x-y < 4 \\ -2x \quad -2x \\ \hline -y < 4-2x \\ -1 \quad -1 \quad -1 \end{array}$$

$$y > -4+2x$$

$$\begin{array}{r} x+y=1 \\ 2x-y=4 \\ \hline 3x=5 \\ x=\frac{5}{3}=1\frac{2}{3} \end{array}$$

$$\begin{array}{r} \frac{5}{3}+y=1 \\ y=\frac{5}{3}-1 \\ y=\frac{5}{3}-\frac{3}{3} \\ y=\frac{2}{3} \end{array}$$

$$\begin{aligned} &(-2, 3) \\ &(-2, -8) \\ &(1\frac{2}{3}, -\frac{1}{2}) \end{aligned}$$



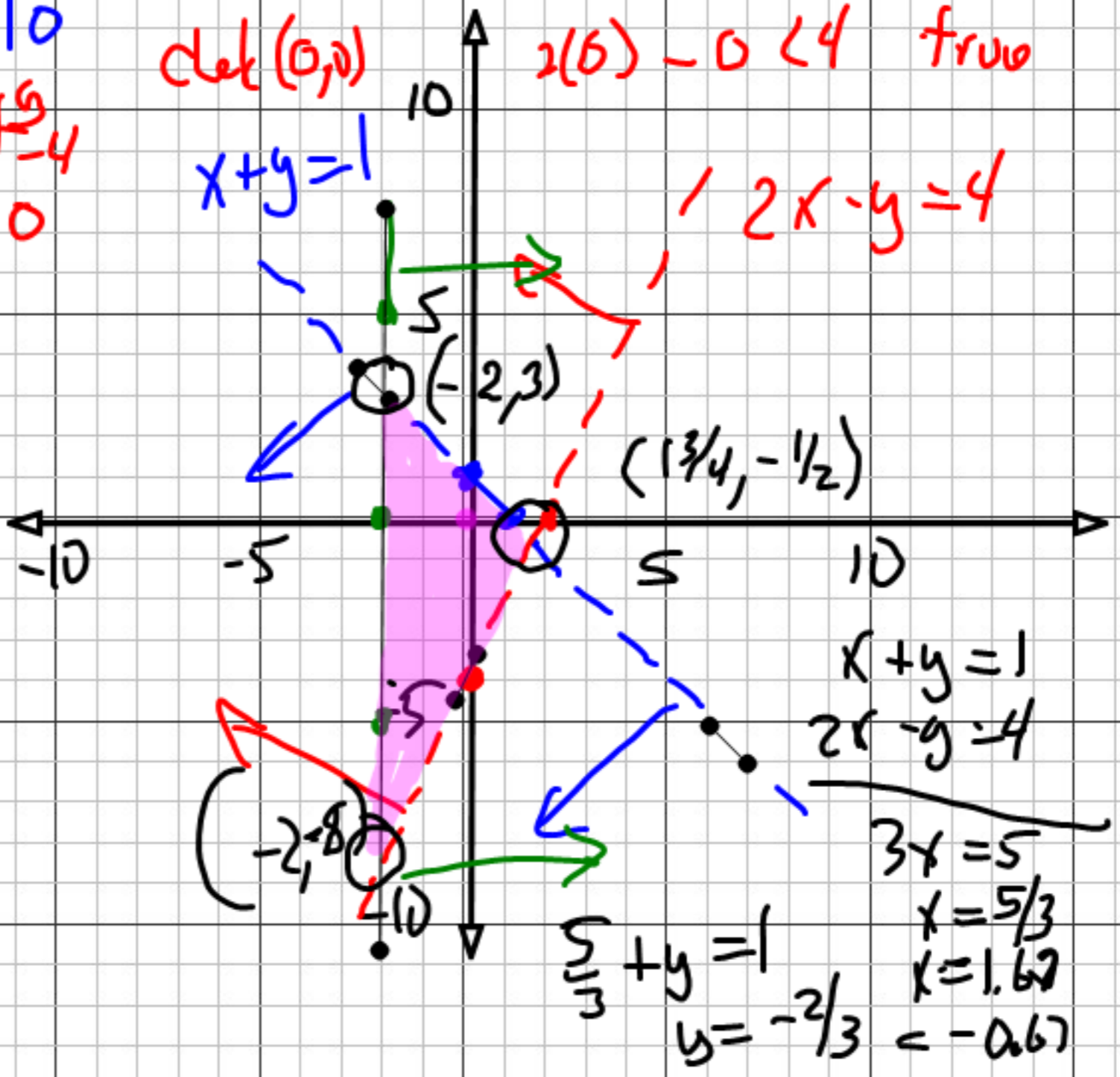
$$\begin{cases} x+y < 1 \\ 2x-y < 4 \\ x \geq -2 \\ 0 \geq -2 \text{ true} \end{cases}$$

$$\begin{array}{r|l} x & y \\ \hline 0 & 1 \\ 1 & 0 \\ \hline 2 & -4 \\ 0 & 0 \end{array}$$

check  $0+0 < 1$  true

check  $(0,0)$

$2(0) - 0 < 4$  true



$$\begin{array}{r} x+y=1 \\ 2x-y=4 \\ \hline 3x=5 \\ x=5/3 \\ x=1.67 \\ y=-2/3 = -0.67 \end{array}$$

$$\begin{cases} 2x + y < 3 \\ x - y > -6 \\ y \geq 0 \end{cases}$$

x	y
0	3
1.5	0

$$2(0) + y = 3$$

$$y = 3$$

$$2x + 0 = 3$$

$$x = 1.5$$

x	y
0	6
-6	0

$$0 - y = -6$$

$$y = 6$$

$$x - 0 = -6$$

$$x = -6$$

$$-y = -6$$

$$y = 6$$

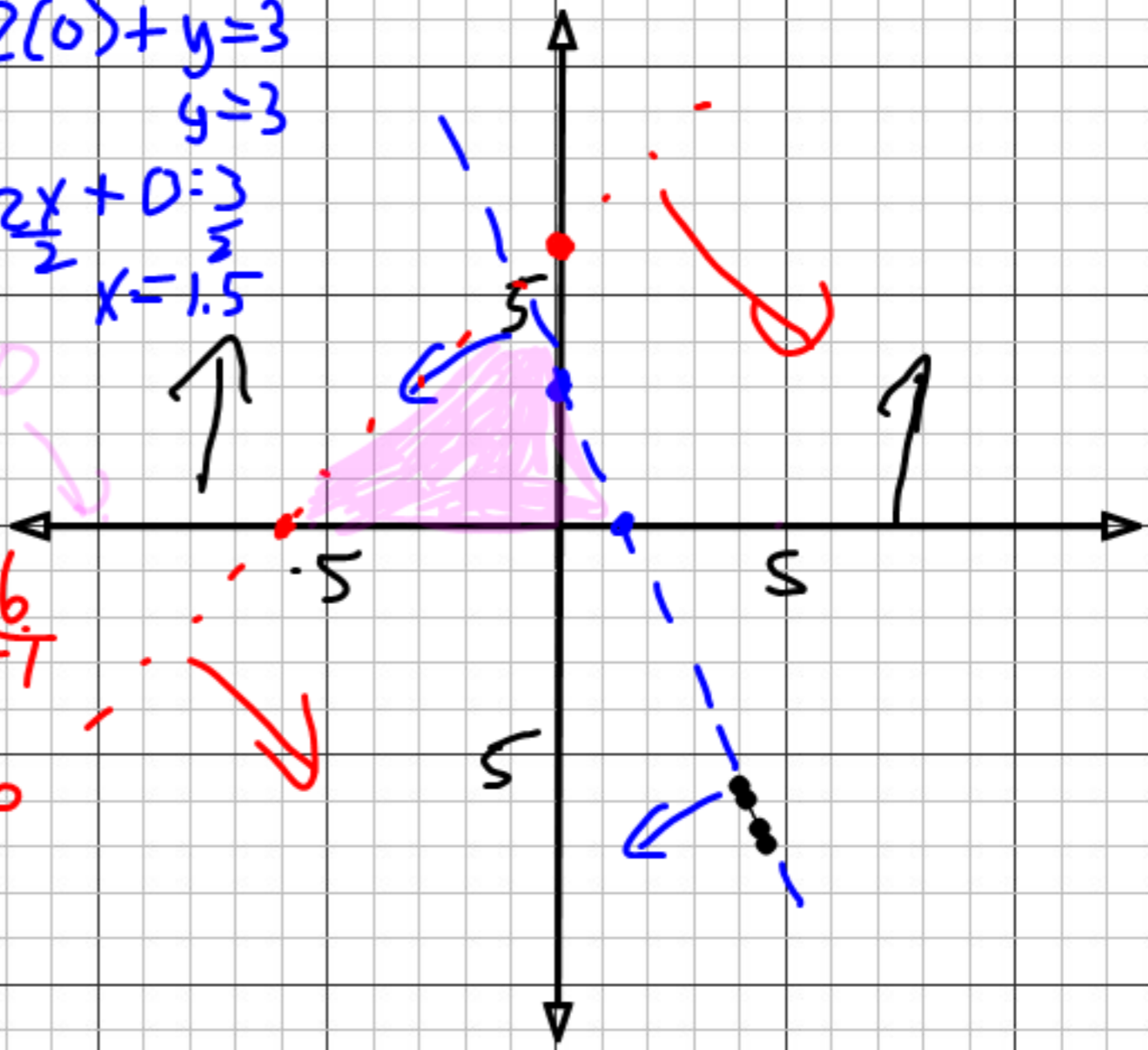
$$x - y > -6$$

$$+y \quad +y$$

$$x > y - 6$$

$$+6 \quad +6$$

$$x + 6 > 6$$



# Graph & find Co-ordinates of vertices

$$\begin{cases} 0 < x < 1 \\ x + y < 1 \\ 2x - y < 4 \\ x \geq -2 \end{cases}$$

$$\begin{array}{r|l} x & y \\ \hline 0 & -4 \\ \hline 0 & 0 \end{array} < 4$$

$$\begin{aligned} 2(0) - y &= 4 \\ -y &= 4 \\ y &= -4 \end{aligned}$$

$$\begin{aligned} 2x - 0 &= 4 \\ x &= 2 \end{aligned}$$

$$\begin{aligned} x + y &= 1 \\ -y &= -y \\ x &= 1 - y \end{aligned}$$

$$\begin{array}{r|l} x & y \\ \hline 0 & 1 \\ \hline -1 & 0 \end{array}$$

$$\begin{aligned} x + y &= 1 \\ y &= 1 - x \\ y &= m(x - 0) + 1 \\ \text{slope } &= -1 \end{aligned}$$

$$\begin{array}{r} x + y = 1 \\ 2x - y = 4 \\ \hline 3x = 5 \end{array}$$

$$\begin{array}{r|l} x & y \\ \hline -2 & 0 \\ \hline -2 & 2 \\ \hline -2 & -4 \end{array}$$

$$x = \frac{5}{3} = 1.6$$

$$\begin{aligned} 5 + 5 &= 10 \\ 5 &= 10 - 5 \\ 5 &= 10 - 5 \\ 5 &= 10 - 5 \end{aligned}$$

