11-16-17 1st Try

5-4 #11

$$\begin{bmatrix} 4 & 2 & 8 \\ 3 & 3 & 5 \\ 1 & 1 & 6 \end{bmatrix} \cdot \begin{bmatrix} 4 & 2 & 8 \\ 3 & 3 & 5 \\ 1 & 1 & 6 \end{bmatrix}$$

3x3 3x3

Answer

16+6+8 8+6+8 32+10+48

12+9+5 6+9+5 24+15+30

4+3+6 2+3+6 8+5+36

$$\begin{bmatrix} 30 & 22 & 90 \\ 26 & 20 & 69 \\ 13 & 11 & 49 \end{bmatrix}$$

② $\begin{cases} y = 2x-4 \\ 3x-y=7 \end{cases}$

$3x-(2x-4)=7$

$3x-2x+4=7$

$x+4=7$

$x=3$ $y=2\cdot3-4$

$y=2$

③ $\begin{cases} 3x - y = 5 \\ 7x + 2y = 55 \end{cases}$

$3x - y = 5 \xrightarrow{\times 2} 6x - 2y = 10$

$7x + 2y = 55 \Rightarrow 7x + 2y = 55$

$13x = 65$

$\frac{13x}{13} = \frac{65}{13}$

$x = 5$

$3(5) - y = 5$

$15 - y = 5$

$y = 10$

④ $\begin{cases} 9x - 2y = 2 \\ 7x + 3y = -3 \end{cases}$

$9x - 2y = 2 \xrightarrow{\times 3} 27x - 6y = 6$

$7x + 3y = -3 \xrightarrow{\times 2} 14x + 6y = -6$

$41x = 0$

$x = 0$

$7 \cdot 0 + 3y = -3$

$3y = -3$

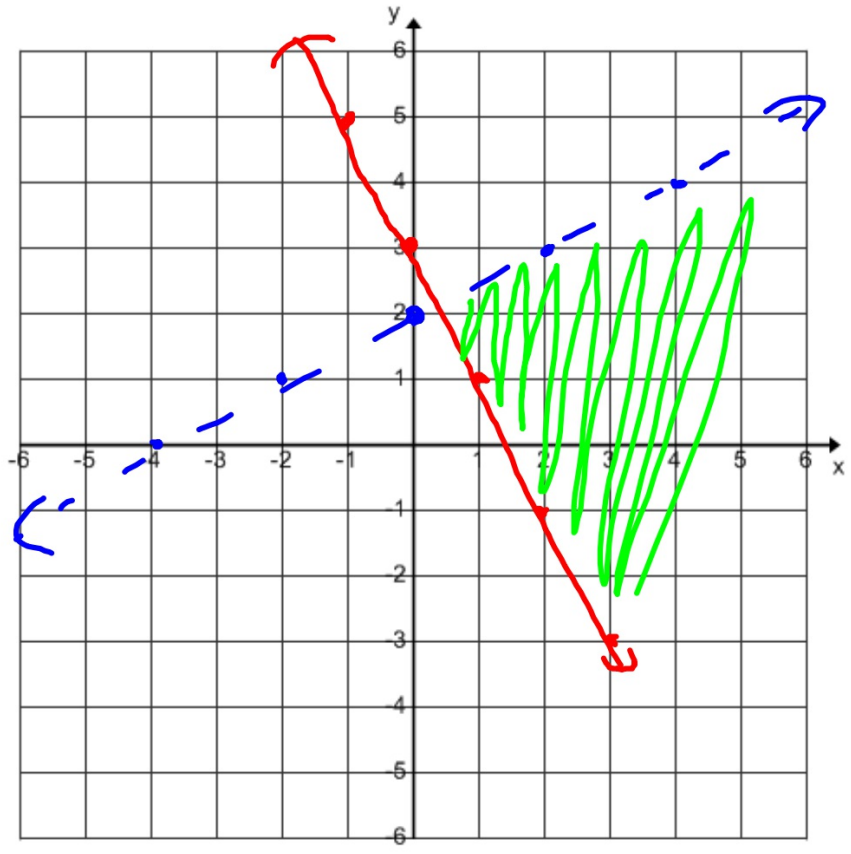
$y = -1$

⑤ $\begin{bmatrix} 2 & 4 \\ 3 & 1 \end{bmatrix} \cdot \begin{bmatrix} -1 & -2 \\ 0 & 5 \end{bmatrix}$

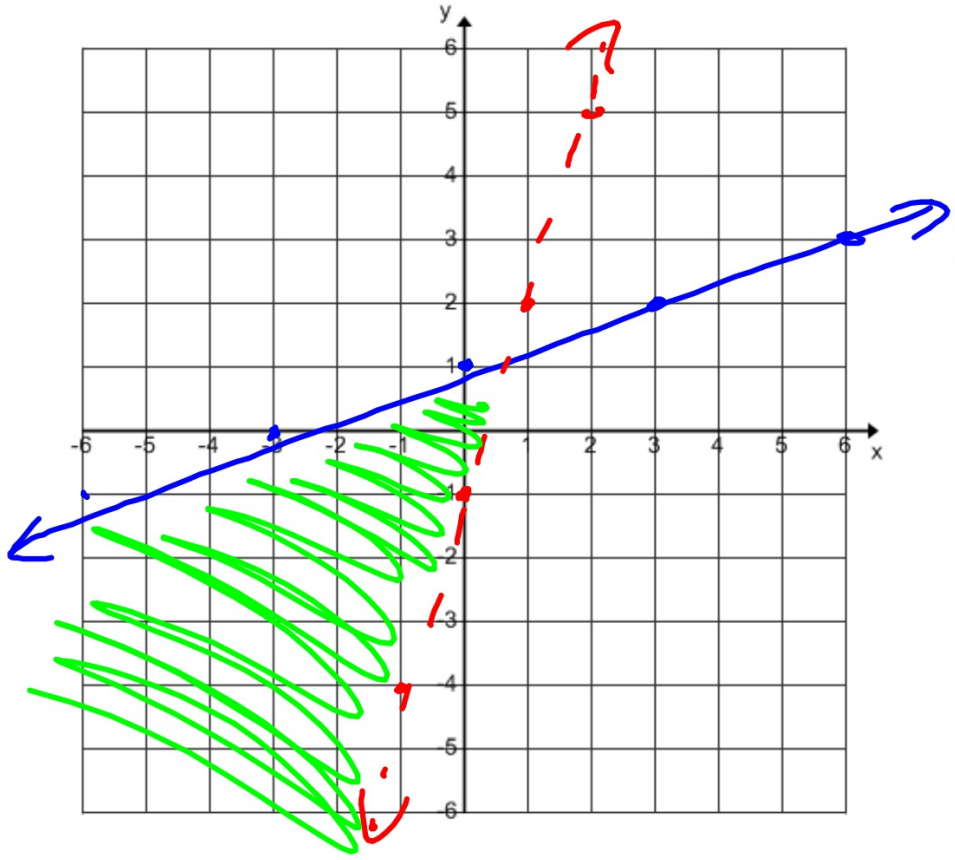
$-2 + 0 \quad -4 + 20$

$-3 + 0 \quad -6 + 5$

$\begin{bmatrix} -2 & 16 \\ -3 & -1 \end{bmatrix}$



$$\begin{cases} y < \frac{1}{2}x + 2 \\ y \geq -2x + 3 \end{cases}$$



$y \leq \frac{1}{3}x + 1$

$y > 3x - 1$

11-16-17 3rd Trig

① $\begin{cases} y = 2x - 1 \\ x - y = -1 \end{cases}$

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

$x - 2x + 1 = -1$

$-x + 1 = -1$

$-1 \quad -1$

$-x = -2$

$x = 2$ $\qquad y = 2(2) - 1$

$y = 3$

② $\begin{cases} 7x - y = 2 \\ 5x + 2y = 15 \end{cases}$ $\xrightarrow{m_2}$ $14x - 2y = 4$

$5x + 2y = 15$

$19x = 19$

$5(1) + 2x = 15$ $\qquad x = 1$

$5 + 2y = 15$

$2y = 10$

$y = 5$

③ $\begin{cases} 11x - 2y = 1 \\ 5x + 3y = 20 \end{cases}$ $\xrightarrow{m_3}$ $33x - 6y = 3$ $\xrightarrow{m_2}$ $10x + 6y = 40$

$43x = 43$

$5(1) + 3y = 20$ $\qquad x = 1$

$5 + 3y = 20$

$3y = 15$

$y = 5$

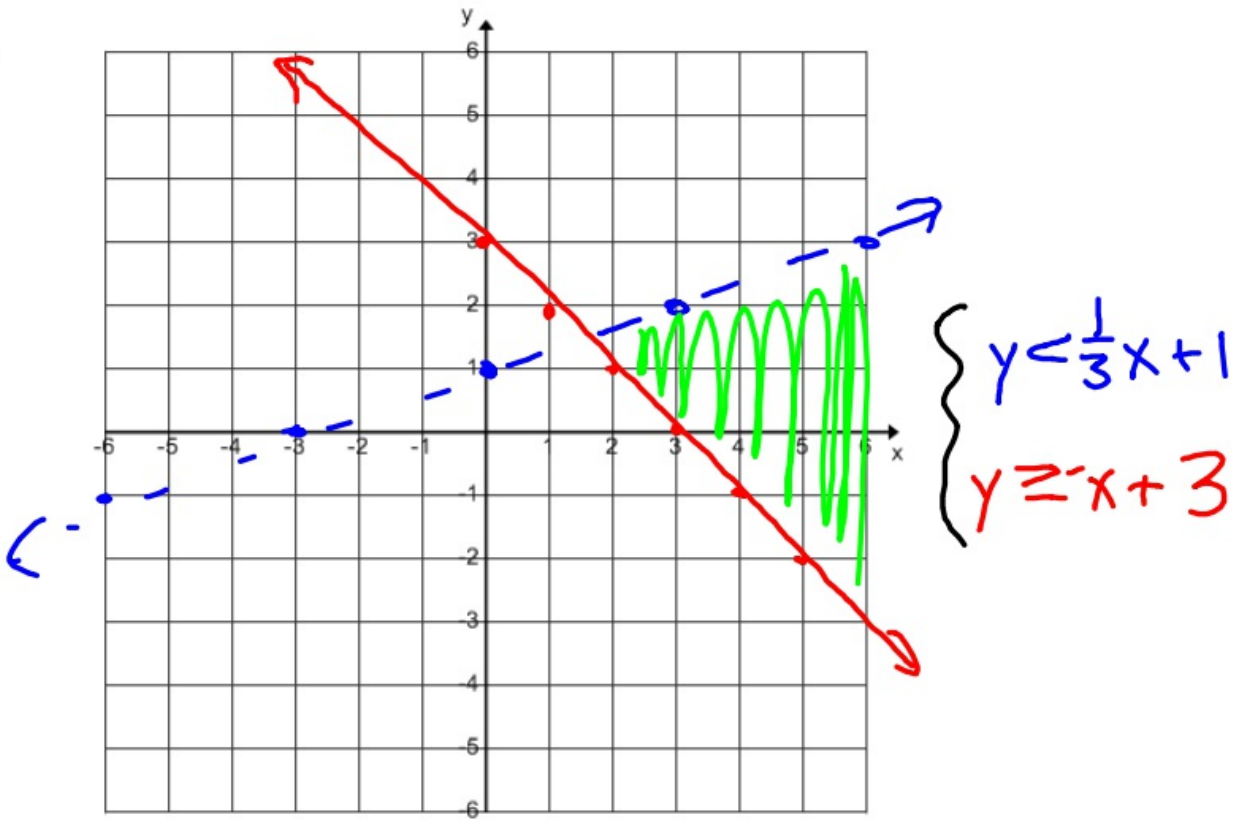
(4)

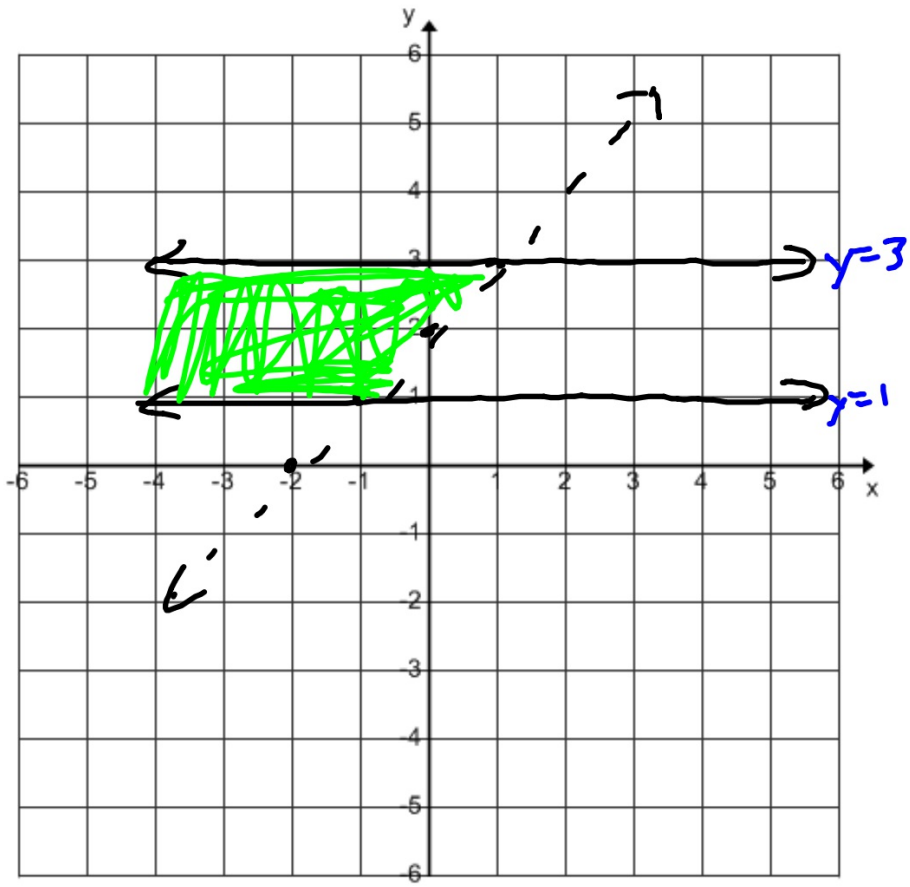
$$\begin{bmatrix} 2 & 1 \\ 5 & 3 \end{bmatrix} \cdot \begin{bmatrix} -1 & -4 \\ 0 & 2 \end{bmatrix}$$

$$\begin{bmatrix} -2+0 & -8+2 \\ -5+0 & -20+6 \end{bmatrix}$$

$$\begin{bmatrix} -2 & -6 \\ -5 & -14 \end{bmatrix}$$

(5)





$$\begin{cases} y \leq 3 \\ y \geq 1 \\ y > x + 2 \end{cases}$$

11-16-17 4th Trig

① $\begin{cases} y = 2x - 4 \\ x - y = -1 \end{cases}$

$x - (2x - 4) = -1$

$x - 2x + 4 = -1$

$-x + 4 = -1$

$-x = -5$

$x = 5$

$y = 2(5) - 4$

$y = 6$

② $\begin{cases} 2x - y = 5 \\ 7x + 2y = 23 \end{cases}$ $\xrightarrow{M3}$ $4x - 2y = 10$

$7x + 2y = 23$

$11x = 33$

$x = 3$

$7(3) + 2y = 23$

$21 + 2y = 23$

$2y = 2$

$y = 1$

③ $\begin{cases} 2x + 8y = 6 \\ 3x + 11y = 9 \end{cases}$ $\xrightarrow{M-3}$ $-6x - 24y = -18$

$\xrightarrow{M2}$ $6x + 22y = 18$

$-2y = 0$

$y = 0$

$2x + 8(0) = 6$

$2x = 6$

$x = 3$

(4) $\begin{bmatrix} 2 & 1 \\ -3 & 0 \end{bmatrix} \cdot \begin{bmatrix} 4 & 5 \\ -2 & 7 \end{bmatrix}$

$8 + -2 \qquad 10 + 7$

$-12 + 0 \qquad -15 + 0$

$$\begin{bmatrix} 6 & 17 \\ -12 & -15 \end{bmatrix}$$

(5) Who could be multiplied?

$A = 2 \times 3$

$B = 2 \times 2$

$C = 3 \times 2$

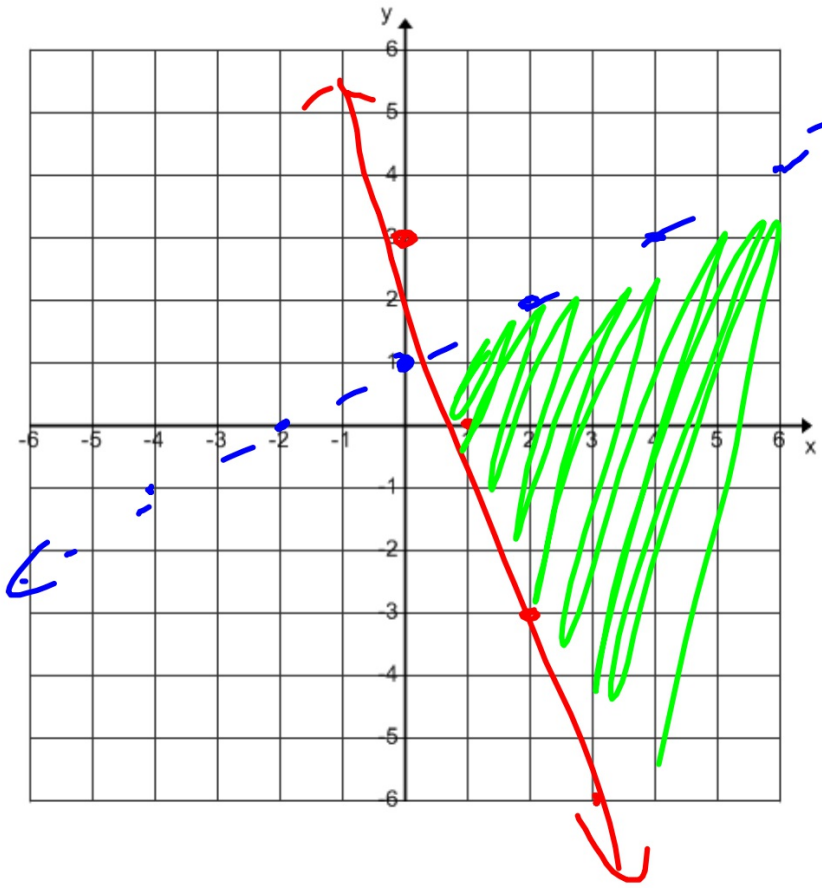
✓ $A \cdot C$ $\quad 2\times3 \quad 3\times2$

$B \cdot B$ $\quad 2\times2 \quad 2\times2$

✓ $C \cdot B$ $\quad 3\times2 \quad 2\times2$

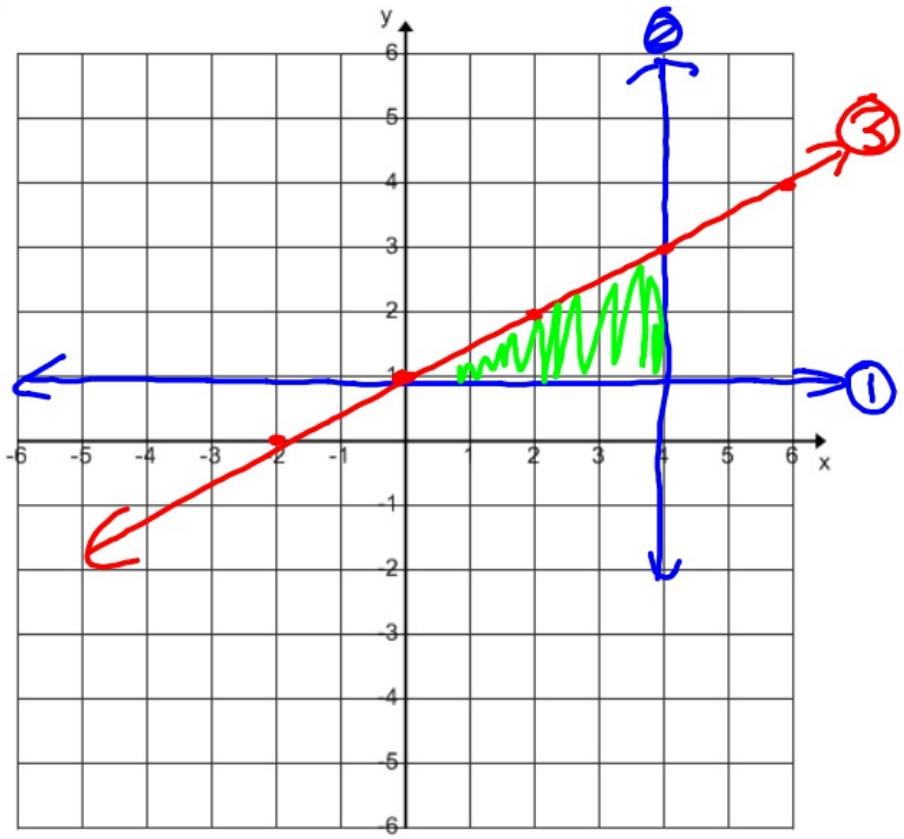
$B \cdot A$ $\quad 2\times2 \quad 2\times3$

$C \cdot A$



$$\begin{cases} y < \frac{1}{2}x + 1 \\ y \geq -3x + 3 \end{cases}$$

7



① $y \geq 1$

② $x \leq 4$

③ $y \leq \frac{1}{2}x + 1$

8

$$\begin{cases} y = 2x + 10 \\ y = 4x - 2 \end{cases}$$

$$2x + 10 = 4x - 2$$

$$-2x \quad -2x$$

$$10 = 2x - 2$$

$$2x = 12$$

$$x = 6$$

$$y = 2(6) + 10$$

$$y = 22$$