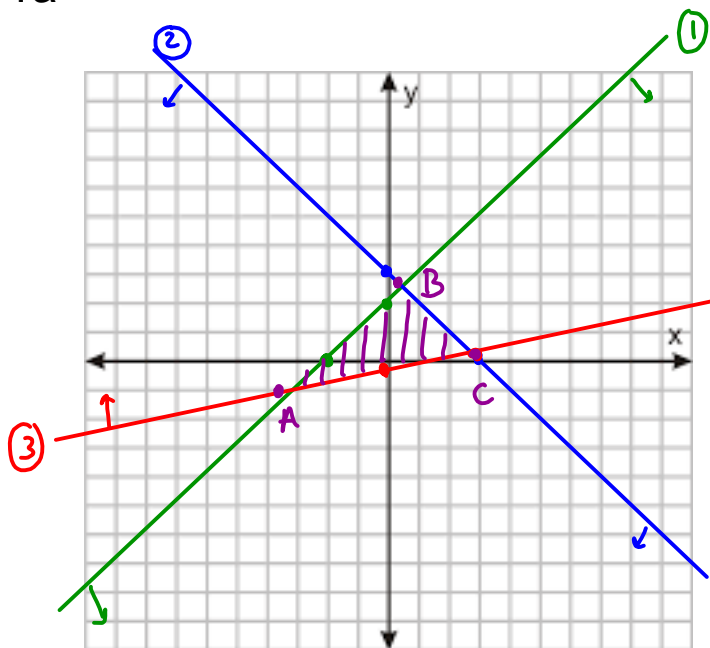


Ex: p.19 #1a

- ① $y \leq x + 2$
- ② $x + y \leq 3$
- ③ $x - 6y \leq 3$



$$y = x + 2$$

$$y = 0 + 2 \quad (0, 2)$$

$$y = 2$$

$$y = x + 2$$

$$0 = x + 2 \quad (-2, 0)$$

$$-2 = x$$

$$x + y = 3$$

$$0 + y = 3 \quad (0, 3)$$

$$y = 3$$

$$x + y = 3$$

$$x + 0 = 3 \quad (3, 0)$$

$$x = 3$$

$$x - 6y = 3$$

$$x - 6(1) = 3$$

$$x - 6 = 3 \quad (9, 1)$$

$$x = 9$$

$$x - 6(0) = 3$$

$$x = 3$$

$$(3, 0)$$

$$x - 6y = 3$$

$$0 - 6y = 3$$

$$-6y = 3$$

$$y = \frac{3}{-6}$$

$$y = -\frac{1}{2}$$

$$(0, -\frac{1}{2})$$

Vertices:

Pt A

$$y = x + 2$$

$$x - 6y = 3$$

$$x - 6(x + 2) = 3$$

$$\underline{x - 6x - 12 = 3}$$

$$\begin{array}{r} -5x - 12 = 3 \\ +12 \quad +12 \end{array}$$

$$\begin{array}{r} -5x = 15 \\ \underline{-5} \quad \underline{-5} \end{array}$$

$$x = -3$$

$$\begin{array}{l} \rightarrow y = x + 2 \\ y = (-3) + 2 \\ y = -1 \\ A(-3, -1) \end{array}$$

Pt B:

$$y = x + 2$$

$$x + y = 3$$

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

$$\begin{array}{r} 2x + 2 = 3 \\ -2 \quad -2 \end{array}$$

$$2x = 1$$

$$x = \frac{1}{2}$$

$$\begin{array}{l} \rightarrow y = \left(\frac{1}{2}\right) + 2 \cdot \frac{2}{2} \\ y = \frac{1}{2} + \frac{4}{2} \\ y = \frac{5}{2} \\ B\left(\frac{1}{2}, \frac{5}{2}\right) \end{array}$$

Pt C:

$$x + y = 3$$

$$\underline{-(x - 6y = 3)}$$

$$7y = 0$$

$$y = \frac{0}{7}$$

$$y = 0$$

$$\begin{array}{l} \rightarrow x + y = 3 \\ x + (0) = 3 \\ x = 3 \end{array}$$

$$C(3, 0)$$