

- (20) a) Secantes porque la pendiente es distinta
b) Paralelas; misma pendiente, distinto punto corte eje de las y
c) " " "
d) Secantes \rightarrow Distinta pendiente

(21) a)
$$\left. \begin{array}{l} y = x + 8 \\ y = 2x \end{array} \right\} \begin{array}{l} -y = -x - 8 \\ y = 2x \\ \hline 0 = x - 8 \\ x = 8 \end{array}$$

$y = 8 + 8 // y = 16$

Punto de corte $(8, 16)$

b)
$$\left. \begin{array}{l} y = 3x + 1 \\ y = 6x + 2 \end{array} \right\} \begin{array}{l} -y = -3x - 1 \\ y = 6x + 2 \\ \hline 0 = 3x + 1 \\ 3x = -1 // x = -\frac{1}{3} \end{array}$$

$y = 6 \cdot \left(-\frac{1}{3}\right) + 2 = -2 + 2 = 0$

$y = 0$

se cortan en $\left(-\frac{1}{3}, 0\right)$

(22)

$$\left. \begin{array}{l} y = -x + 5 \\ y = x + 7 \end{array} \right\}$$

$$2y = 12$$

$$y = \frac{12}{2} = 6$$

$$6 = x + 7 // x = 6 - 7 = -1$$

$$x = -1$$

Vertex 1 $(-1, 6)$

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$$\left. \begin{array}{l} y = x + 7 \\ y = 2x - 9 \end{array} \right\} \begin{array}{l} -y = -x - 7 \\ y = 2x - 9 \end{array}$$

$$/ = x - 16$$

$$x = 16$$

$$y = 16 + 7 = 23$$

Vertex 2 $(16, 23)$

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$$\left. \begin{array}{l} y = -x + 5 \\ y = 2x - 9 \end{array} \right\} \begin{array}{l} -y = x - 5 \\ y = 2x - 9 \end{array}$$

$$/ = 3x - 14$$

$$x = \frac{14}{3}$$

$$y = -\frac{14}{3} + 5 = -\frac{14}{3} + \frac{15}{3} = \frac{1}{3}$$

3 = Vertex = $(\frac{14}{3}, \frac{1}{3})$

(23)

a) $y = -x + 4$ — Secantes

$$\left\{ \begin{array}{l} y = x + 4 \\ y = 2x + 4 \\ y = 3x \end{array} \right.$$

Paralelas

$$\left\{ \begin{array}{l} y = -x + 5 \\ y = -x - 2 \\ y = -x + 7 \end{array} \right.$$

b) $y = 3x - 7$ → Secantes

$$\left\{ \begin{array}{l} y = x - 7 \\ y = -x \\ y = 4x + 2 \end{array} \right.$$

Paralelas

$$\left\{ \begin{array}{l} y = 3x \\ y = 3x + 5 \\ y = 3x - 2 \end{array} \right.$$

c) $y = -6x - 1$ → Secantes

$$\left\{ \begin{array}{l} y = 6x - 1 \\ y = 3x + 2 \\ y = x + 1 \end{array} \right.$$

Paralelas

$$\left\{ \begin{array}{l} y = -6x \\ y = -6 + 5 \\ y = -6 - 2 \end{array} \right.$$

d) $y = 4$ → Secantes

$$\left\{ \begin{array}{l} y = x \\ y = x + 1 \\ y = x - 1 \end{array} \right.$$

Paralelas

$$\left\{ \begin{array}{l} y = 0 \\ y = -2 \\ y = +3 \end{array} \right.$$