



Mi Universidad

Problematario

Nombre del Alumno : Leo Geovani García García

Nombre del tema : Ecuaciones punto pendiente

Parcial 3

Nombre de la Materia : Geometría analítica

Nombre del profesor : Juan José Ojeda Trujillo

Nombre de la Licenciatura : Técnico en enfermería General

Semestre I

1: $x^2 + 2y = 4$ Determinar las intersecciones con los ejes.

$$x^2 + 2y - 4 = 0$$

$$2y - 4 = 0$$

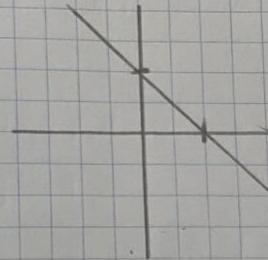
$$y = \frac{4}{2}$$

$$(0, 2)$$

$$x^2 - 4 = 0$$

$$x = \sqrt{4}$$

$$(2, 0)$$



2: PA (2, 4) $m(-1/3)$

$$m = y - y_1 = m(x - x_1)$$

$$y + 4 = -1/3(x - 2)$$

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

$$3y + 12 = -x + 2$$

$$-x + 3y + 12 - 2 = 0$$

$$-x + 3y + 10 = 0$$

$$10: \text{ PA } (-1, 4) \quad m (-3/2)$$

$$m = \frac{y - y_1}{x - x_1} = m (x, x_1)$$

$$y - 4 = -3/2 (x + 1)$$

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

$$2y - 8 = 3x - 3$$

$$3x + 2y - 8 = -3$$

$$3x + 2y - 8 + 3 = 0$$

$$3x + 2y - 5 = 0$$

q: PA (7,8) Paralela por P(-2,2) y Q (3,-4)

$$m_{PA} = \frac{-4-2}{3+2} = -\frac{6}{5}$$

$$y - y_1 = m (x - x_1)$$

$$y - 8 = -\frac{6}{5} (x - 7)$$

$$5y - 40 = -6x + 42$$

$$6x + 5y - 40 - 42 = 0$$

$$6x + 5y - 82 = 0.$$

$$8- \quad 3x - 7y - 21 = 0$$

$$3x - 7y - 21 = 0$$

$$Ax + by + c = 0$$

$$m = \frac{A}{B}$$

$$m = \frac{-3}{-7}$$

$$m = \frac{3}{7}$$

Pendiente

$$3(0) - 7y - 21 = 0$$

$$-7 = 21$$

$$y = \frac{21}{-7}$$

$$y = -3$$

$$3x - 7(0) - 21 = 0$$

$$3x = 21$$

$$x = \frac{21}{3}$$

$$x = 7$$

$$7. P(-1, 3) \text{ y } Q(5, 4)$$

$$y - 3 = \frac{4 - 3}{5 - (-1)} (x + 1)$$

$$y - 3 = \frac{1}{6} (x + 1)$$

$$y - 3 = \frac{x + 1}{6}$$

$$6y - 18 = x + 1$$

$$-x + 6y - 18 = 1$$

$$-x + 6y - 18 - 1 = 0$$

$$-x + 6y - 19 = 0$$

$$(0) + 6y - 1 = 0$$

$$6y - 1 = 0$$

$$6y = +1$$

$$y = \frac{1}{6} \quad \text{F.C}$$

$$-x + 6(0) - 1 = 0$$

$$-x - 1 = 0$$

$$-x = +1$$

$$x = -1$$

3: $m (-2/7)$ y su intersección con el eje y es 3

$$y - y_1 = m(x - x_1)$$

$$y - 3 = -2/7(x - 0)$$

$$y - 3 = \frac{-2x}{7}$$

$$7y - 21 = -2x$$

$$-2x + 7y - 21 = 0$$

$$-2x + 7y - 21 = 0$$

$$-2x + 7y - 21 = 0$$

4: $A(-3, -1)$ $B(5, 2)$

$$y - y_1 = \frac{y_2 - y_1}{x_2 - x_1} (x - x_1)$$

$$-3x + 8y + 8 = 9$$

$$-3x + 8y + 8 - 9 = 0$$

$$y + 1 = \frac{2 + 1}{5 + 3} (x - (-3))$$

$$-3x + 8y - 1 = 0$$

$$y + 1 = \frac{3}{8} (x + 3)$$

$$y + 1 = \frac{3x + 9}{8}$$

$$8y + 8 = 3x + 9$$

$$5: PA = (-1, 4) \quad m = -3/2$$

$$y - 4 = \frac{-3}{2} (x - (-1))$$

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

$$2y - 8 = -3x - 3$$

$$3x + 2y - 8 = -3$$

$$3x + 2y - 8 + 3 = 0$$

$$3x + 2y - 5 = 0 \quad \text{F.G.}$$

$$6: PA (-5, 2) \quad m = 1/3$$

$$y - 2 = 1/3 (x - (-5))$$

$$(0) + 3y - 1 = 0$$

$$y - 2 = \frac{x + 5}{3}$$

$$\frac{x}{-5} + \frac{y}{2} = 1$$

$$3y = +1$$

$$3y - 6 = x + 5$$

$$\frac{2x + 5y}{10} = 1$$

$$y = \frac{1}{3} \quad \text{F.C.}$$

$$-x + 3y - 6 = 5$$

$$2x - 6y = 10$$

$$x + 3(0) - 1 = 0$$

$$-x + 3y - 6 + 5 = 0$$

$$(1) (2x - 6y - 10 = 0)$$

$$x = 1 \quad \text{F.C.}$$

$$-x + 3y - 1 = 0 \quad \text{F.G.}$$

$$\frac{2x + 6y + 10}{10}$$

$$\text{F.S.}$$