

## Trabajo Practico N° 1

### Geometria

- 1) Hallar la ecuacion explicita de la recta perpendicular a  $4x - y + 3 = 0$  que pasa por el punto  $(4, 5)$ . Graficar ambas rectas.
- 2) Hallar la ecuacion canonica y explicita de la circunferencia con centro en  $(2, 1)$  y radio 3. Graficar.
- 3) Hallar la ecuacion explicita de la parabola  $y^2 - 2y + 8x + 17 = 0$

$$1) -y = -4x - 3$$

$$-y = mx + b$$

$$-y = 4x + 3$$

$$y = 4x + 3$$

$$m = -\frac{1}{4}$$

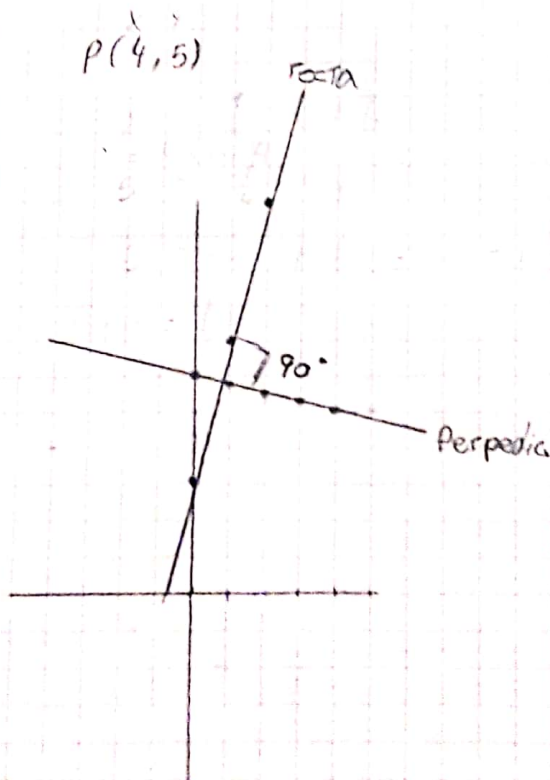
$$y = -\frac{1}{4} \cdot x + 6$$

$$5 = -\frac{1}{4} \cdot 4 + 6$$

$$5 = -1 + 6$$

$$5 = -1 + 6 =$$

$$6 = 6$$



X	$y = -\frac{1}{4} \cdot x + 6$
0	6
1	5.75
2	5.5
3	5.25
4	5

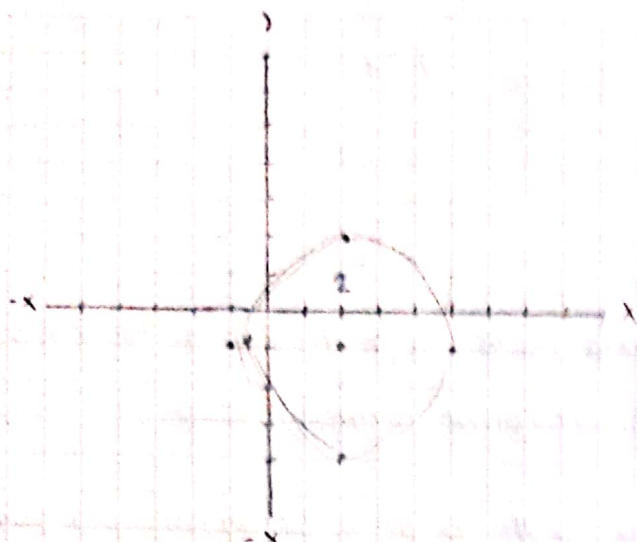
X	$y = 4x + 3$
0	3
1	7
2	11
3	15
4	19

$$2) (x - \alpha)^2 + (y - \beta)^2 = r^2$$

$$c(\alpha; \beta) \quad r = 3$$

$$(x - 2)^2 + (y + 1)^2 = 3^2$$

$$(x - 2)^2 + (y + 1)^2 = 9$$



$$C = (2, 0) \quad r = 2$$

$$3) \quad y^2 - 2y + 8x + 17 = 0$$

$$(y-1)^2 - 4 \cdot 2 (x+2)$$

$$F(-4, 1)$$

$$C(-2, 1)$$

$$D: X = -2 + 2$$

$$X = 0$$

