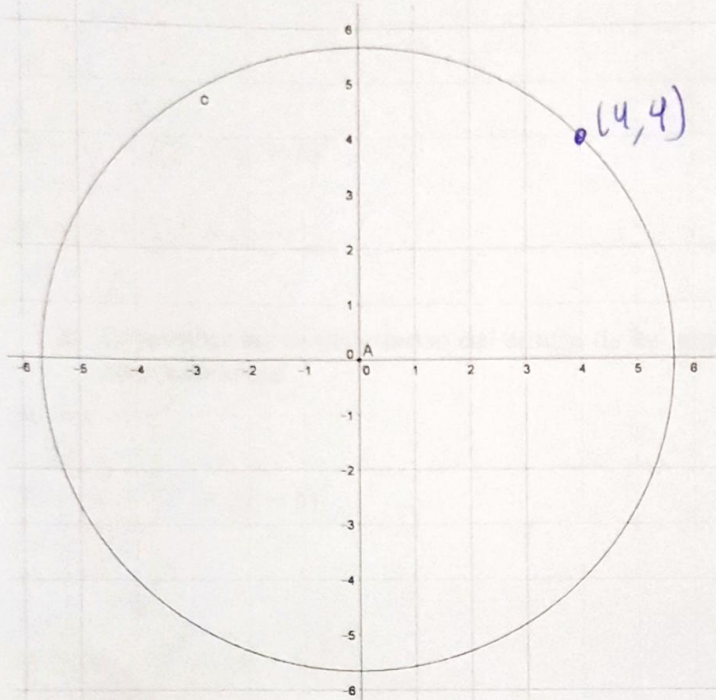


Instrucciones: Resuelve los siguientes ejercicios analíticos, todos los ejercicios deberán ser resueltos a mano, de ser resueltos a computadora el valor máximo de la actividad será del 10%

1. Determina la ecuación de las circunferencias situadas al origen



$$r^2 = 4^2 + 4^2$$

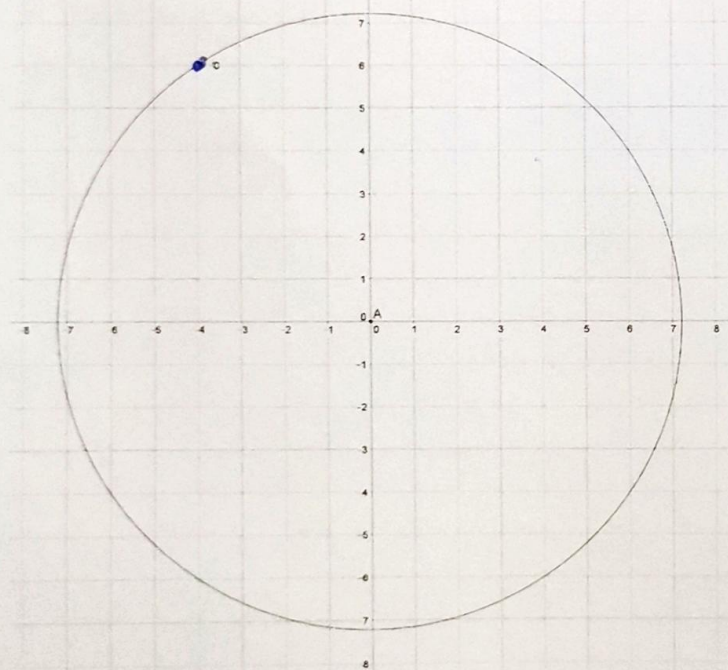
$$r^2 = 16 + 16$$

$$r^2 = 32$$

$$r = \sqrt{32}$$

$$r^2 = (x-h)^2 + (y-k)^2$$

$$32 = (x-0)^2 + (y-0)^2$$



$$r^2 = x^2 + y^2$$

$$r^2 = (-8)^2 + 5^2$$

$$r^2 = 64 + 25$$

$$r^2 = 89$$

$$r^2 = (x-h)^2 + (y-k)^2$$

$$89 = (x-0)^2 + (y-0)^2$$

2. Dadas las ecuaciones de la circunferencia, obtén el valor del radio

$$46 = x^2 + y^2$$

$$r = \sqrt{46}$$

$$25 = (x + 3)^2 + (y - 4)^2$$

$$r = 5$$

$$34 = x^2 + y^2$$

$$r = \sqrt{34}$$

$$50 = (x - 5)^2 + (y + 6)^2$$

$$r = 11$$

$$49 = (x + 1)^2 + (y - 1)^2$$

$$r = 7$$

3. Determina las coordenadas del centro de las siguientes ecuaciones de circunferencia

$$46 = x^2 + y^2$$

$$(-4, -1)$$

$$25 = (x + 3)^2 + (y - 4)^2$$

$$(-3, 4)$$

$$34 = x^2 + y^2$$

$$(-1, -1)$$

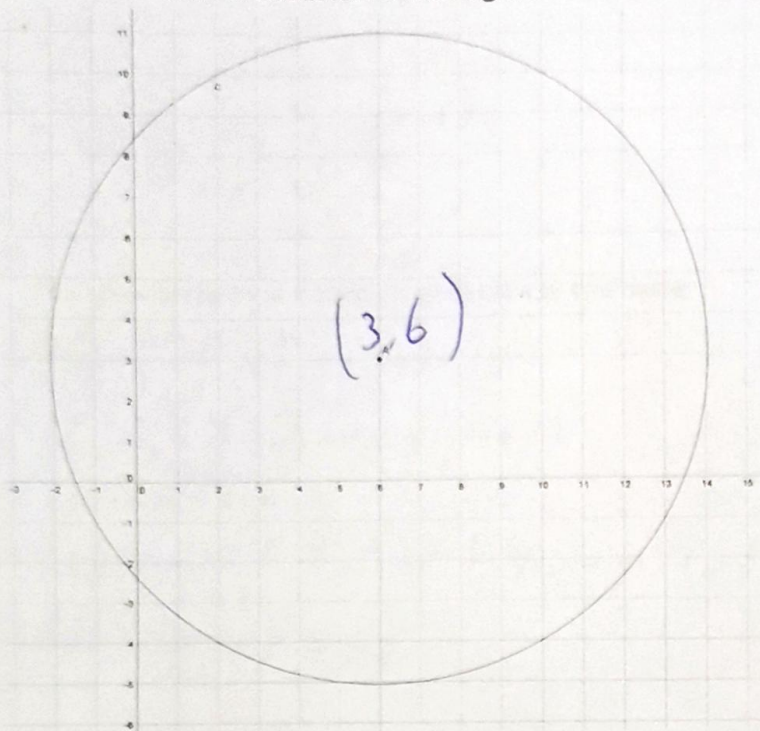
$$50 = (x - 5)^2 + (y + 6)^2$$

$$(5, -6)$$

$$49 = (x + 1)^2 + (y - 1)^2$$

$$(-1, 1)$$

4. Determina la ecuación de las siguientes circunferencia desplazadas



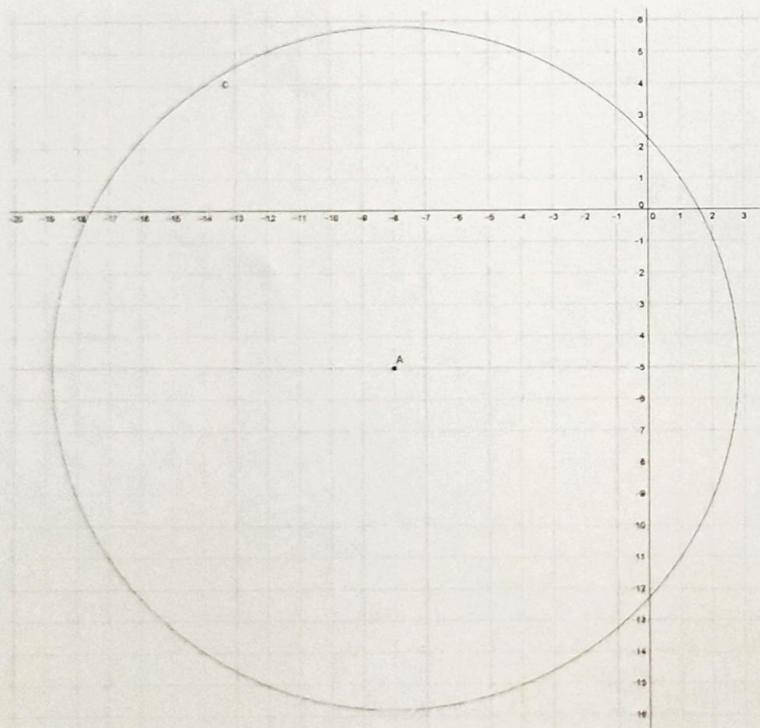
$$r = \sqrt{(x)^2 + (y)^2}$$

$$r = \sqrt{4^2 + 1^2}$$

$$r = \sqrt{16 + 1}$$

$$r = \sqrt{17}$$

$$17 = (x-3)^2 + (y-6)^2$$



$$C = (-8, -5)$$

$$r^2 = x^2 + y^2$$

$$r^2 = (-8)^2 + (-5)^2$$

$$r^2 = 64 + 25$$

$$r^2 = 89$$

$$r = \sqrt{89}$$

$$89 = (x - (-8))^2 + (y - (-5))^2$$

5. Convierte de la ecuación ordinaria a la general

$$25 = (x + 3)^2 + (y - 4)^2$$

$$25 = x^2 + 6x + 9 + y^2 - 8y + 16 - 8y + 16$$

$$x^2 + y^2 + 6x - 8y = 0$$

$$50 = (x - 5)^2 + (y + 6)^2$$

$$50 = x^2 - 10x + 25 + y^2 + 12y + 36 + 12y + 36$$

$$x^2 + y^2 - 10x + 12y = 0$$

$$49 = (x + 1)^2 + (y - 1)^2$$

$$x^2 + y^2 + 2x - 2y - 47 = 0$$

6. Convierte de la ecuación general a la ordinaria

$$x^2 + y^2 - 4x - 6y = 39$$

$$x^2 - 4x + 4 + y^2 - 6y + 9 = 39 + 4 + 9$$

$$(x - 2)^2 + (y - 3)^2 = 52$$

$$x^2 + y^2 + 8x + 4y = 81$$

$$x^2 + 8x + 16 + y^2 + 4y + 4 = 81 + 16 + 4$$

$$(x + 4)^2 + (y + 2)^2 = 101$$

$$x^2 + y^2 + 10x - 4y = -3$$

$$x^2 + 10x + 25 + y^2 - 4y + 4 = -3 + 25 + 4$$

$$(x + 5)^2 + (y - 2)^2 = 26$$