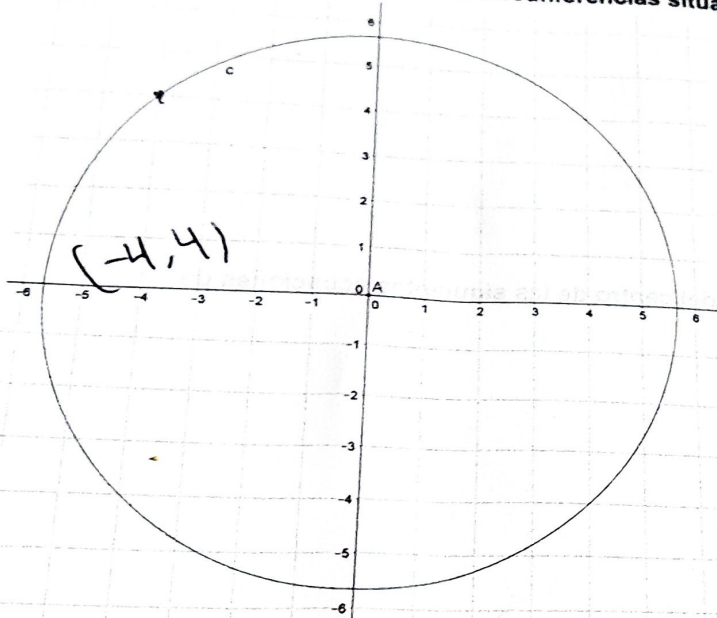


Instrucciones: Resuelve los siguientes ejercicios analíticos, todos los ejercicios deberán ser resueltos a mano, de ser resueltos a computadora el valor máximo de la actividad será del 10%

1. Determina la ecuación de las circunferencias situadas al origen

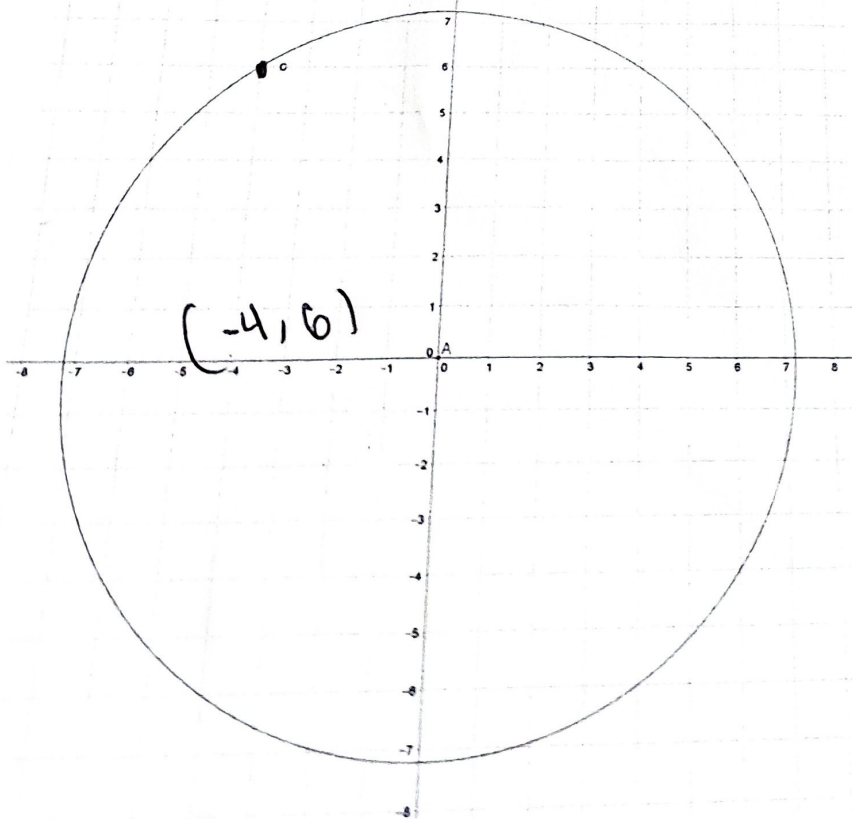


$$r = \sqrt{x^2 + y^2}$$

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

$$r^2 = 16 + 16$$

$$r^2 = \underline{32}$$



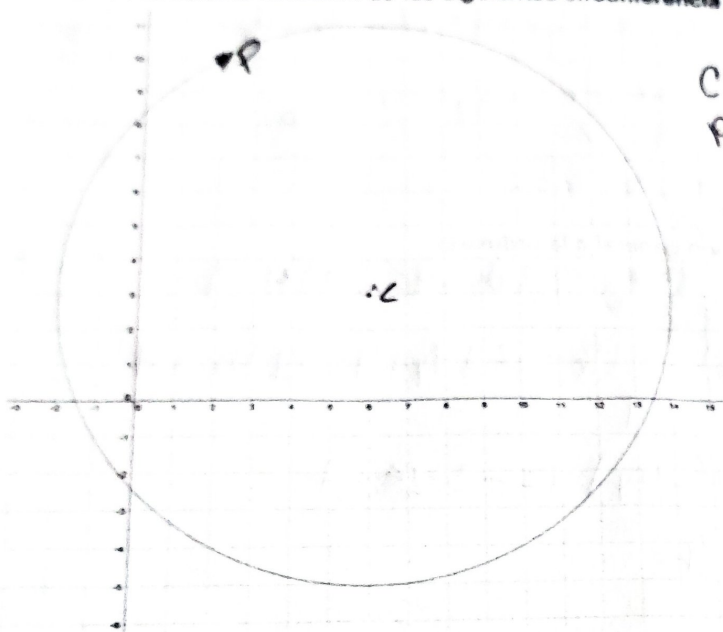
$$r^2 = x^2 + y^2$$

$$r^2 = (-4)^2 + 6^2$$

$$r^2 = 16 + 36$$

$$r^2 = \underline{52}$$

4. Determina la ecuación de las siguientes circunferencia desplazadas



$$C(6, 3)$$

$$P(2, 10)$$

$$r = \sqrt{(10-3)^2 + (2-6)^2}$$

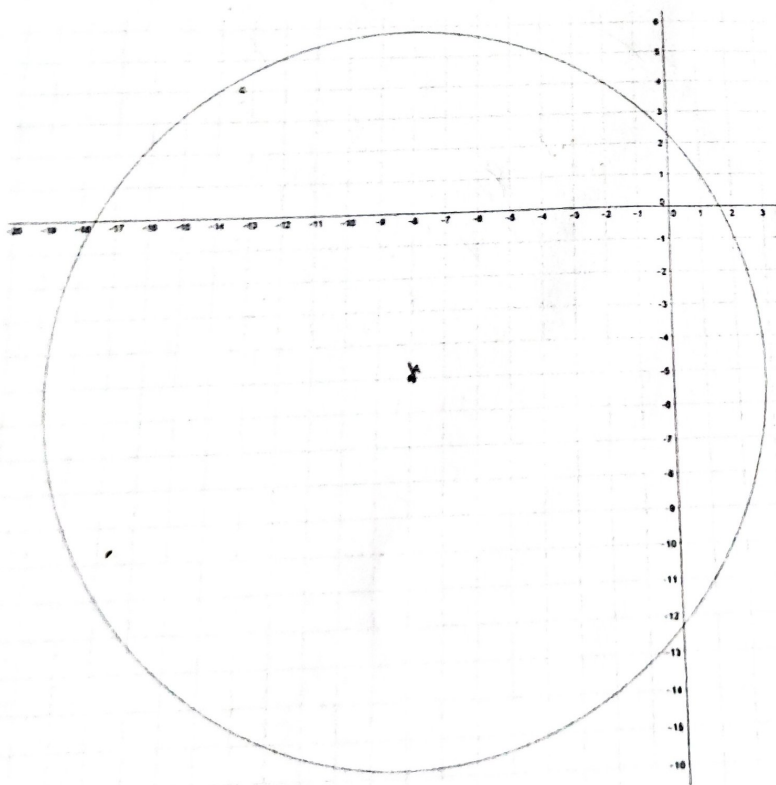
$$r = \sqrt{49 + 16}$$

$$r = \sqrt{65}$$

$$r = \sqrt{65}$$

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

$$65 = (x-6)^2 + (y-3)^2$$



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

$$P(2, -9)$$

$$r = \sqrt{(-9+5)^2 + (2+8)^2}$$

$$r = \sqrt{16 + 64}$$

$$r = \sqrt{80}$$

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

$$80 = (x-(-8))^2 + (y-(-5))^2$$

Plataforma. Dadas las ecuaciones de la circunferencia, obtén el valor

2.-

$$46 = x^2 + y^2$$
$$r = \sqrt{46}$$

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

$$r = \sqrt{3^2 + 4^2} = \sqrt{9 + 16}$$

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

$$r = \sqrt{34}$$

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

$$r = \sqrt{5^2 + 6^2} = \sqrt{25 + 36} = 61$$

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

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

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

$$r = \sqrt{2}$$

$$31. \quad 46 = x^2 + y^2 \quad (-1, -1)$$

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

$$34 = x^2 + y^2 \quad (-1, 1)$$

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

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

5. Convierte de la ecuación ordinaria a la general

$$25 = (x+3)^2 + (y-4)^2 \quad 25 = x^2 + 6x + 9 + y^2 - 8y + 16$$

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

$$50 = (x-5)^2 + (y+6)^2 \quad 50 = x^2 - 10x + 25 + y^2 + 12y + 36$$

$$x^2 + y^2 - 10x + 12y + 11 = 0$$

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

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

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

6. Convierte de la ecuación general a la ordinaria

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

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

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

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

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

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

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