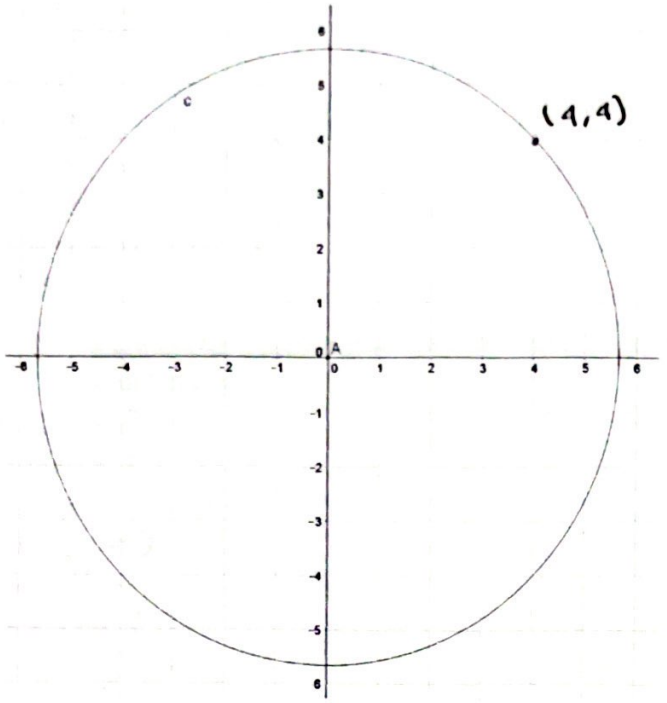
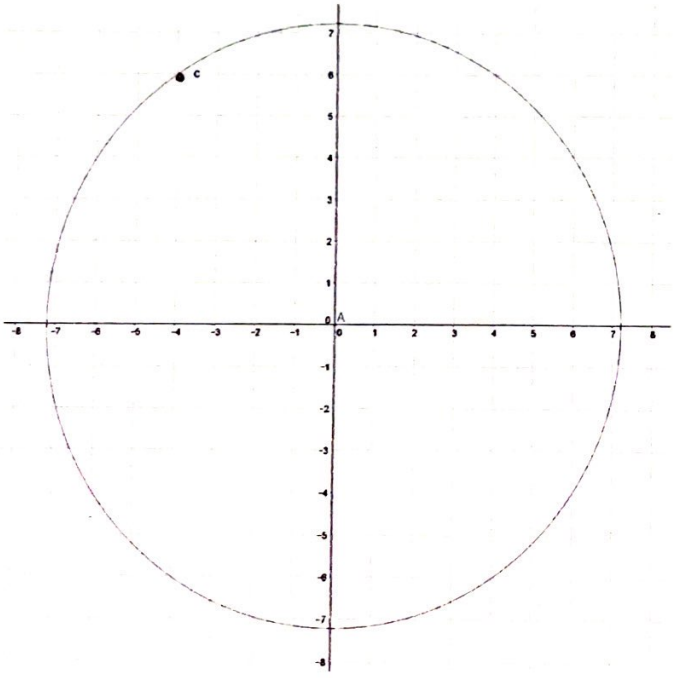
Instrucciones: Resuelve los siguientes ejercicios analíticos, todos los ejercicios deberán ser resueltos a mano, de ser resueltos a computadora el valor máximo de la actividad será del 10%

1. **Determina la ecuación de las circunferencias situadas al origen**



$r^2 = x^2 + y^2$
$r^2 = 4^2 + 4^2$
$r^2 = 16 + 16$
$r^2 = 32$
$r = \sqrt{32}$

$r^2 = (x-h)^2 + (y-k)^2$
$32 = (x-\ \ )^2 + (y-\ \ )^2$



$r^2 = x^2 + y^2$
$r^2 = -4^2 + 6^2$
$r^2 = 16 + 36$
$r^2 = 52$

$r^2 = (x-h)^2 + (y-k)^2$
$52 = (x-(-8))^2 + (y-(-5))^2$

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

$46 = x^2 + y^2$

$r = \sqrt{46}$

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

$r = 25$

$34 = x^2 + y^2$

$r = 3-1$

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

$r = 61$

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

$r = 2.$

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

$46 = x^2 + y^2$

$(-1, -1)$

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

$(-3, -1)$

$34 = x^2 + y^2$

$(-1, -1)$

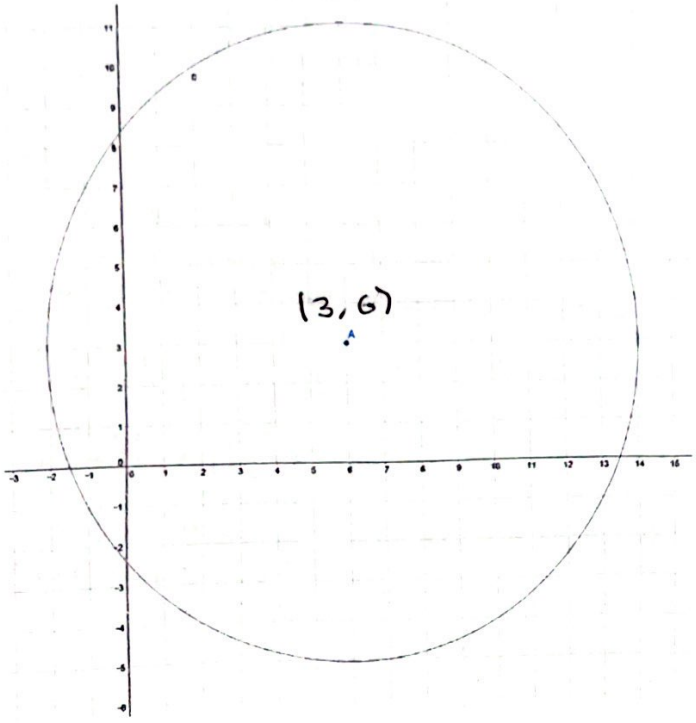
$50 = (x - 5)^2 + (y + 6)^2$

$(5, -6$

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

$(-1, 1)$

4. Determina la ecuación de las siguientes circunferencia desplazadas



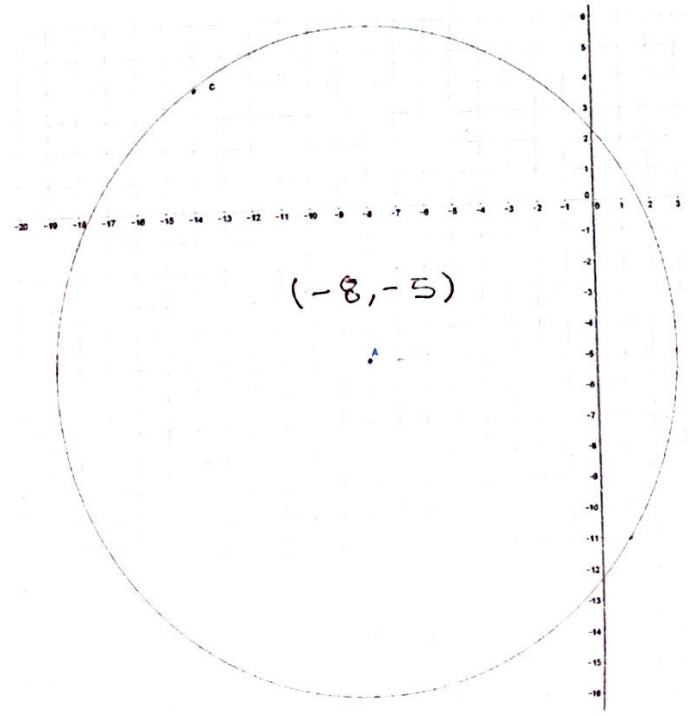
$r = \sqrt{(x)^2 + (y)^2}$

$r = \sqrt{4^2 + 7^2}$

$r = \sqrt{16 + 46}$

$r = \sqrt{65}$

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



$C = (-8,-5)$

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

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

$r^2 = 61 + 25$

$r^2 = 89$

$r = \sqrt{89}$

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

5. Convierte de la ecuación ordinaria a la general

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

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

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

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

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

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

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

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

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

6. Convierte de la ecuación general a la ordinaria

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

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

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

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

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

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

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

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

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