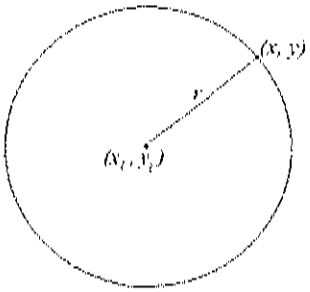
EQUATION OF A CIRCLE

The Equation of a Circle with center (x_1, y_1) and radius r is:

$$(x - x_1)^2 + (y - y_1)^2 = r^2$$



1) Write the equation of a circle whose center is (5, -4) and whose radius is 2.

$(x-5)^2 + (y-(-4))^2 = 2^2$

$(x-5)^2 + (y+4)^2 = 4$

2) Write the equation of a circle whose center is (-5, 3) and whose radius is 13.

$(x+5)^2 + (y-3)^2 = 169$

3) Write the equation of a circle whose center is the origin and whose radius is 8.

$x^2 + y^2 = 64$

4) Identify the radius and center of a circle whose equation is $(x + 7)^2 + (y - 8)^2 = 121$

$C = (-7, 8)$

$r = 11$

5) Identify the radius and center of a circle whose equation is $(x - 3)^2 + (y + 6)^2 = 49$

$C = (3, -6)$

$r = 7$

6) Write the equation of a circle with center at the origin and a diameter of 12.

$r = 6$

$x^2 + y^2 = 36$