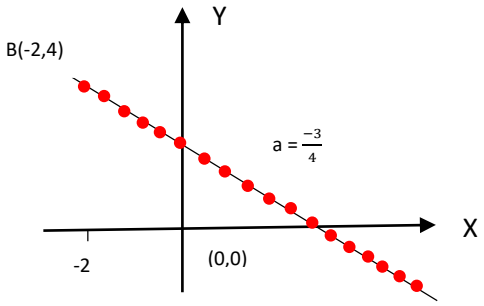
Tanget to Circle



B(-2,4) $a = -\frac{3}{4}$

$y - 4 = -\frac{3}{4}(x+2)$

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

$3x + 4y - 10 = 0$

The line is tanget to

a circle $x^2 + y^2 = R^2$ the center (0,0)

$3x + 4y - 10 = 0$

A = 3 B = 4

$\sqrt{A^2 + B^2} = \sqrt{3^2 + 4^2} = 5$

$\frac{3X+4Y-10}{5} = 0$ (0,0) The center of the circle

$\frac{3.0+4.0-10}{5} = R$

$R = \frac{-10}{5} = 2$

The equation of the circle is

$x^2 + y^2 = 4$