

$$2x^2 + 16x + 2y^2 = 0$$

$$2(x^2 + 8x + y^2) = 0$$

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

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

$$(x+4)^2 + y^2 = 16$$

$$(h, k) = (-4, 0), r = 4$$

Complete the square

$$x^2 + 8x =$$

$$x^2 + 8x + \left(\frac{8}{2}\right)^2 - \left(\frac{8}{2}\right)^2$$

$$= x^2 + 8x + 4^2 - 4^2$$

$$~~x^2~~ = (x+4)^2 - 16$$