

Write the standard form of the equation of the circle with the given conditions.

1a. Center $(9, -10)$ and $r = 5$

1b. Center $(2, 0)$ and $r = \sqrt{2}$

Solution:

The standard form of the equation of the circle is $(x - x_0)^2 + (y - y_0)^2 = r^2$

Where $C(x_0, y_0)$

So we have

1a. $(x - 9)^2 + (y + 10)^2 = 25$

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