

Write the equation of the circle with a center at $P(-3, -1)$ and passing through the point $(2, 3)$.

Write the equation of the circle with a center at $Q(4, 6)$ and passing through the point $(-1, 2)$.

A circle has a center at $(1, 4)$ and a radius of $5\sqrt{2}$. Does the circle pass through the point $(2, -3)$?

Does the circle pass through the point $(3, \sqrt{5})$ if the center is at the origin and the radius is 4?

Write the equation of a circle that has a center at $(-2, 7)$ and a diameter of 8.