Common Core Standards - Resource Page

The resources below have been created to assist teachers' understanding and to aid instruction of this standard.

Domain	**Standard:** G.GPE.1 - Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.
Expressing Geometric Properties with Equations **Translate between the geometric description and the equation for a conic section**	Questions to Focus Learning How do you write the equation of a circle? A circle is a set of points that can be defined by an equation. Student Friendly Objectives *Reasoning Targets* I can derive the general equation of a circle by applying the Pythagorean Theorem. I can determine the standard form of circle by completing the square. I can determine the equation of a circle given the radius and center of the circle. I can determine the radius and center of a circle, given the equation of the circle. Vocabulary completing the square standard form of a circle (e.g., $(x\text{-h})^2 + (y\text{-k})^2 = r^2$) Teacher Tips Vertical Progression G.GPE.2 - Derive the equation of a parabola given a focus and directrix. G.GPE.3 - Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.

The above information and more can be accessed for free on the Wiki-Teacher website.
Direct link for this standard: G.GPE.1