

Video 6.1A transcript – How to write the equation of a circle.

This video presentation is to demonstrate how to write the standard form of a circle. Before we write out the standard form of a circle, let's see what is the standard form of a circle. The standard form of a circle is $(x - h)^2 + (y - k)^2 = r^2$, where h and k is the center of the circle and r is the radius of the circle. The easiest way to write out the standard form of a circle is first draw a circle on the x and y axis. We know once we draw a circle the middle is the center. From the center to any point on the circle is the radius. So, the problem already told me that the circle is centered at negative two comma two. That means the h is negative two; the k is two. I know the radius is already three as well so we can plug in what we know h k and r into my standard form to write out the equation. So, that will be $(x + 2)^2 + (y - 2)^2 = 3^2$. If I simplify this equation of the circle a little bit, I can get $(x + 2)^2 + (y - 2)^2 = 9$, and this is how we find the standard form of the circle - by finding what the h and k and the radius is. And that will conclude this video presentation.