Eccentricity of an ellipse



An ellipse which is not a circle has eccentricity 0 < e < 1. (A circle has eccentricity 0.) The ellipse with equation

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1,$$

where a > b, has eccentricity e given by

$$b^2 = a^2(1 - e^2).$$