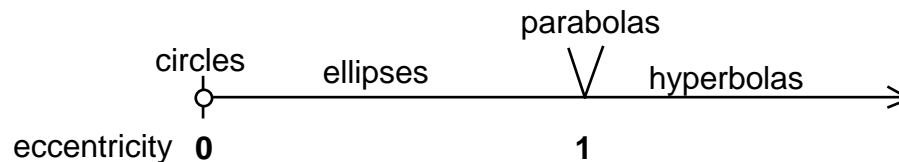


For any parabola, $e = 1$. For circles, the subject of eccentricity is a little touchy!

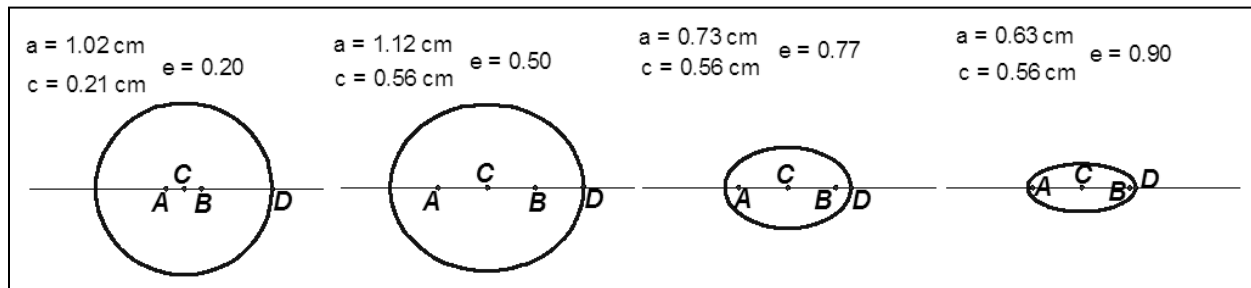
$PF = e \cdot d(P, \mathcal{L}) \Rightarrow e = \frac{PF}{d(P, \mathcal{L})}$. Since P and F are distinct points, the numerator is never zero.

However, if PF approaches zero and $d(P, \mathcal{L})$ approaches infinity, the value of the fraction approaches zero and the eccentricity approaches zero. The following graphic summarizes the relationship between eccentricity and the conic sections.



Here are the graphs of some ellipses and hyperbolas with different eccentricities

Ellipses (with a horizontal major axis):



Hyperbolas (with a horizontal major axis):

