MAT 137Y: Calculus with proofs
Assignment 1
Sample Solutions

1. Let S be a circle of radius 5. Let $d(a, b)$ denote the distance between two points a and b.

   Note: $(0, 10)$ is the open interval of real numbers between 0 and 10. Mathematically, a point a is on the circle means the distance between this point and the center of the circle is equal to the radius. A point a is inside the circle means the distance between this point and the center of the circle is strictly less than the radius. Visually, here is a picture to show you one point a on a circle vs one point a inside a circle.



