Let K be the Euclidean circle with equation

$$x^2 + y^2 - \frac{1}{2}y - \frac{3}{16} = 0$$

(a)   Express the equation of K in the form
            K={ z : |z-α| = r}.
       Where α is a complex number, r is a real number and z= x+iy. Hence show that K
       lies entirely in the unit disc D.   [10]

(b)   Find the non-Euclidean centre and radius of K
                                                                                      [15]