

MA 2733

Worksheet 3 – September 4, 2014

Name _____

1. Consider the curve given by the polar equation $r = 2 - \sin \theta$.

(a) Make a rough sketch of the curve.

(b) Set up the “inside a polar curve” integral for the upper of the two regions bounded by the curve and the x -axis.

(c) Write the curve as a parametric equation.

(d) Set up the “under a parametric curve” integral for the upper of the two regions bounded by the curve and the x -axis.

(e) Find the area! (Evaluate one of the integrals from parts (b) and (d); whichever you prefer)