

King Fahd University of Petroleum and Minerals  
Department of Mathematics and Statistics  
Math 201 – Term 182 – Quiz 1

Name:

Student ID #:

Section #:

**Question 1.** Sketch the curve with polar equation  $r = 1 + \cos \theta$  and indicate with an arrow the way it is traced as  $\theta$  changes between 0 and  $2\pi$

**Question 2.** Consider the parametric equation  $C: x = t^3 - 12t, y = t^2 - 1$ . Find  $\frac{dy}{dx}$  and  $\frac{d^2y}{dx^2}$ .