King Fahd University of Petroleum and Minerals

MATH 201 Section 13 QUIZ #1 Term 131 *Dr. A. Khalfallah*

Name:	ID:

Q1. Sketch the curve $r = 1 - 2\sin(\theta)$

Q2 Find the area of the region that lies **inside** the curve $r = 2 + \cos(2\theta)$ but **outside** the curve $r = 2 + \sin(\theta)$

Q3 Find the length of the curve $r = \sqrt{1 + \sin(2\theta)}$, $0 \leq \theta \leq \pi\sqrt{2}$

Q4 Find the slope of the tangent line to the curve $r = 2 - \sin(\theta)$ at $\theta = \frac{\pi}{3}$