KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
MATH 201-08
Quiz # 2
Oct 5, 2011

NAME:	ID#:

SHOW ALL YOUR WORK

1. **(4points)** Find the area inside the curve $r = 3\sin\theta$ and outside the curve $r = 2 - \sin\theta$.

2. **(3points)** Find a polar equation (in the form $r = f(\theta)$) for the parabola $y = x^2$.

3. **(3points)** Find the length of the polar curve $r = \theta^2,\ 0 \leq \theta \leq 2\pi$.