

Math 201-133

Quiz 2

(B)

Name:.....ID#:.....Sec:.....Ser:.....

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**Q.1:** Sketch graphs and find area of the region that lies inside the circle  $r = 3 \sin(\theta)$  and outside the cardioid  $r = 1 + \sin(\theta)$ .

**Q.2:** Find length of the curve  $r = 2 \sin^3 \frac{\theta}{2}$ ,  $0 \leq \theta \leq \pi$ .