

Name: _____

Math 232 Quiz 9

1. (10 pts) Find the area enclosed by the x -axis and the curve

$$x = 2\theta - \sin \theta, \quad y = 1 - \cos \theta, \quad 0 \leq \theta \leq 2\pi.$$

2. (10 pts) Find the length of the curve

$$x = 3t^2, \quad y = t^3 - 3t, \quad 0 \leq t \leq 1.$$

3. (10 pts) Find the Maclaurin series of the function

$$f(x) = \frac{e^x + e^{-x}}{2}.$$