

MATH141(0332) Calculus II

Quiz 1, Thursday, September 4, 2008

Name: _____

Show all work clearly and in order, and circle your final answers. Justify your answers algebraically whenever possible. Calculator is not allowed in this quiz. You have 10 minutes to take this 10 point quiz.

1. (*2 points*) Let $f(x) = 2x^2$. Find the area of the region \mathbf{R} between the graph of f and the x -axis on the interval $[0, 1]$.

2. (*4 points*) Find the volume V_1 of the solid whose base is \mathbf{R} , and each cross-section perpendicular to the x -axis is a solid square.

3. (*4 points*) Find the volume V_2 of the solid obtained by revolving the region \mathbf{R} about the x -axis.