Math 151
Quiz 8
Fall 2008

Show all work in a neat and organized fashion. Clearly indicate your answers.
20 points possible.

1. (5 pts.) Attached page, Riemann sum.

2. (5 pts.) Attached page, definite integral using areas.

3. (5 pts.) Sketch the region enclosed by the given curves. Then find the area of the region.

$$y = x^2 - 8, \quad y = 10 - x^2$$

4. (5 pts.) Find the volume of the solid obtained by rotating the region bounded by the given curves about the specified line.

$$y = \sqrt{x}, \quad y = 0, \quad x = 1, \quad x = 4; \qquad \text{about the } x\text{-axis}$$