Problem Set 4   **Calculus 2**   **Due 3/26/07**

You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Do #42 in §10.2.

2. Find the exact area bounded by the curve with parametric equations
$$x(t) = \sin t - 2 \cos t$$
$$y(t) = 1 + \sin t \cos t$$

3. Do #74 in §10.2.

4. Find the area of the region bounded by $r = a \cos b\theta$ for positive constants a and b.