

Problem Set 4 Calc 2 Due 4/11/2003

Each problem is worth 5 points. For full credit provide complete justification for your answers.

1. Problem #28 in Stewart section 9.3.

2. Problem #34 in Stewart section 9.3.

[You might want to warm up for problems 3 and 4 by looking at #41 in Stewart section 10.1]

3. For the curves defined by the parametric equations $x = t^2$, $y = t^3 - ct$, find (in terms of c) the slope(s) of the curve at the point of intersection.

4. For the curves defined by the parametric equations $x = t^2$, $y = t^3 - ct$, find (in terms of c) the area of the region bounded by the curve. Be sure to explain your work.