Calculus: Inclass Homework 10

December 6th, 2007

1. Sketch the region enclosed by $x = y^3$ and $x = y^2 + y - 1$ and find its area.

2. Evaluate
$$\int_0^\pi \sin x \sqrt[3]{\cos^2 x}\,\mathrm{d}x \qquad \text{and} \qquad \int_0^\pi x \sin x \sqrt[3]{\cos^2 x}\,\mathrm{d}x.$$