

Quiz 4, Calculus III

Fall 2012

Name: _____

1. (5 points) Using any method from sections 13.9 or 13.10, find three positive numbers x , y and z such that their sum is 4 and the expression $x + y^2 + z^3$ is a minimum.

2. (5 points) Sketch the region of integration. Then evaluate the iterated integral, switching the order of integration if necessary.

$$\int_0^2 \int_{y^2}^4 \sqrt{x} \sin x \, dx \, dy$$

