

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 201 Quiz 4
First Semester 2009–2010(091)

Name: _____

ID #: _____

Sec#: _____

1. (a) Describe, by inequalities, the projection on the (x, y) -plane of the solid bounded by the planes

$$z = x + y, \quad z = x - y$$

and the surfaces $y = x^2, x = 1$.

- (b) Using (a), describe the solid by inequalities.
2. (a) Describe the projection on the (x, y) -plane of the region inside the sphere $x^2 + y^2 + z^2 = 1$ and above the plane $z = 1/2$ by inequalities.
- (b) Use this to set up a double integral for the volume of the solid in part 2(a).