

## MA261 - Quiz 6 - Summer 2016

Name: \_\_\_\_\_

**Directions:** Please show all your work leading to your answers. Having some correct work with an incorrect answer will earn you partial credit.

1. Use the methods from this class to find the surface area of the part of the paraboloid  $z = 9 - x^2 - y^2$  that lies above the  $xy$ -plane. (This just means that you should not realize it as a surface of revolution.) (10 points)
2. Write down, but do not evaluate, an iterated integral that gives the value of

$$\iiint_E x^2 y \, dV$$

where  $E$  lies below the plane  $z = x$  and above the triangular region with vertices  $(0,0,0)$ ,  $(1,0,0)$  and  $(0,1,0)$ . (10 points)