## KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS DEPARTMENT OF MATHEMATICS AND STATISTICS MATH 201 - QUIZ 3

Name: Student ID #:

**Question 1**. Describe the intersections of the planes z = k for any k and the quadratic surface  $4z^2 = 1 + x^2 + 4y^2$ . Find all values of k for which there is no intersection.

**Question 2**. Find an equation of the plane which contains the lines  $x = \frac{y}{2} = \frac{z}{3}$  and  $\frac{x}{3} = y = \frac{z}{8}$ .

Your Solution.