

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

Name:

Student ID #:

**Question 1.** Consider the lines

$$L_1 : x = t + 2, y = 3t, z = 1 - t \text{ and } L_2 : x = 5s - 1, y = 8 - 2s, z = -s.$$

- (a) Find the point at the intersection of  $L_1$  and  $L_2$ .
- (b) Find the equation of the plane which contains  $L_1$  and  $L_2$ .

**Question 2.** Find the traces of the surface  $4x^2 - 16y^2 + z^2 + 16 = 0$  and identify it.

**Your Solution.**