

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
MATH 201-12
Quiz # 3
Oct 31, 2013

NAME:

ID#:

SHOW ALL YOUR WORK

1. **(3points)** Find the distance from the point $(2, 1, 3)$ to the line $x = 2 + 2t, y = 1 + 6t, z = 3$.
2. **(3points)** Find the equation of the plane through $P(2, 4, 5)$ perpendicular to the line $x = 5 + t, y = 1 + 3t, z = 4t$.
3. **(4points)** Find and sketch the domain of the function $f(x, y) = \sqrt{(x^2 - 4)(y^2 - 9)}$.