KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
MATH 201-06
Quiz # 3
April 23, 2010

| NAME: | ID#: |
|---|---|

**SHOW ALL YOUR WORK**

1. **(4pts)** Find the parametric equations of the line of intersection of the two planes $x + y - z = 8,\ 2x - y + z = 0$.

2. **(3pts)** Classify and sketch the surface $x^2 - y^2 + z^2 - 2x + 2y + 4z + 2 = 0$.

3. **(3pts)** Sketch the domain of the function $f(x, y) = x - \sqrt{1 - y^2}$ and its level curve $f(x, y) = 1$.