

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
MATH 201-2
Quiz # 5
May 4, 2014

NAME:

ID#:

SHOW ALL YOUR WORK

1. **(5points)** Find the absolute maximum and absolute minimum of the function $f(x, y) = 2 + 2x + 2y - x^2 - y^2$ on the triangular region with vertices at $(0, 0)$, $(3, 0)$, $(0, 3)$.

2. **(5points)** Find the point in the plane $x + y + z = 1$ closest to the origin.