

KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
DEPARTMENT OF MATHEMATICS & STATISTICS
MATH 201-12
Quiz # 5
Dec. 12, 2013

NAME:

ID#:

SHOW ALL YOUR WORK

1. **(3points)** Evaluate the integral $\int_0^3 \int_{\sqrt{x/3}}^1 e^{y^3} dy dx$.

2. **(4points)** Evaluate $\int_0^4 \int_0^{\sqrt{16-y^2}} \sqrt{25-x^2-y^2} dx dy$.

3. **(3points)** Evaluate $\int_0^{\pi/2} \int_0^1 r^3 \sin \theta \cos \theta dr d\theta$