

KFUPM Term (11λ) Name _____ Serial# _____
MATH 201 Quiz # 5(a) ID# _____ Section # 6
Time: 20 Minutes Marks: / 8

1) Use polar coordinates to find the area enclosed by $r = \cos 3\theta$.

2) Set up a triple integral using $dx dy dz$ as order of integration to find volume of the solid bounded by the graph of equations $y = 2 - z^2$, $y = z^2$, $x + z = 5$, and $x = 0$.

1) Use polar coordinates to evaluate $\int_{-1}^1 \int_0^{\sqrt{1-x^2}} (x^2 + y^2)^{3/2} dy dx$

2) Set up a triple integral using $dz dy dx$ as order of integration to find volume of the solid bounded by the surface $y = x^2$ and planes $y + z = 9$ and $z = 0$.