

King Fahd University of Petroleum & Minerals
Department of Mathematical Sciences
(Semester 091) Math 101 Quiz # 6

Name: _____ I.D. # _____ Sr. # _____

1. Given $y = \frac{1}{1+x}$, find the differential dy and evaluate it for $x = 1$, $dx = -0.01$.
2. Using differentials, estimate the amount of paint needed to apply a coat of paint 0.1 cm thick to a hemispherical dome of diameter 50 cm.