

King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
MATH 101 – Quiz 4 **Term 081**

NAME: _____ ID: _____

Exercise 1. Let $f(x) = \frac{1}{x^2}$. Find $f'(x)$, $f''(x)$, $f^{(3)}(x)$, $f^{(4)}(x)$, and then deduce $f^{(n)}(x)$ for all n .

Exercise 2. Show that the following two curves are orthogonal: $2x^2 + y^2 = 3$ and $x = y^2$.