KFUPM | Term 161 | Date: 23/11/2016

Mathematics & Statistics | MATH 101 | Duration: 20 minutes

Quiz# 4

Name: | ID #: | Section: 4 | Serial #:

1. Find $\frac{dy}{dx}$ if $x^y = y^x$.

2. If $f(x) = \frac{1}{4}\left(\frac{x-2}{x+2}\right)$ then compute $\frac{d^{56}y}{dx^{56}}|_{x=-1}$.

3. If the position function S of a particle is given by the equation $S(t) = 2t^3 - 18t^2 + 48t + 5$ where t is measured in seconds and S is measured in meters, then when the particle is speeding up? Justify your answer.