KFUPM | Term 123 | Date: 11/7/2013
Mathematics & Statistics | MATH 101 | Duration: 20 minutes
Quiz# 4
Name: | ID #: | Section 6 | Serial #:

*Q*1. (4 points) show that $\frac{d}{d\theta}\left(\arctan\left(\cos\theta\right)\right) = \frac{1}{\sin\theta - 2\csc\theta}$.

Q2. (5 points) Use <u>differentials</u> to approximate $e^{0.03}$.

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*Q*2. (6 points) An isosceles triangle has equal sides 6 inches long. If the angle θ between the equal sides is changing at a rate of 2 degrees/minute, how fast is the area of the triangle changing when $\theta = 60^\circ$.

With My Best Wishes