

Quiz 9

MATH 112-017 and 112-019

New Jersey Inst. Tech.

Prof. Nicholas Dubicki

Time Limit: 15 min.

Name: _____

Date: _____

Section: _____

1. Obtain the first three nonzero terms of the Taylor series centered at zero for the following functions. You are free to quote results from well known Taylor series in your answer.

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(a.) $f(x) = x \arctan x$, (b.) $g(x) = \sin(x^4)$

2. Find the result of the indefinite integral, I , as a series.

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$$I = \int \frac{\sin(x)}{x} dx$$