

Quiz 2

MATH 1231 – Single-variable Calculus I
Summer 2016

Total Points: 10

Total Time: 15 minutes

Name: _____

Date: _____

Read all of the following information before starting the quiz:

- Show all work, clearly and in order, to get full credit. I reserve the right to take off points if I cannot see how you arrived at your answer (even if your final answer is correct).
- Do not use calculators.
- Circle or otherwise indicate your final answers.

1. Find the **slope** of the tangent line at the point $(\frac{\pi}{2}, 0)$ to the graph of the following equation

$$y^2 + \cos(x + y) = xy$$

(4 points)

2. Differentiate the functions (no need to simplify)

(6 points)

(a)

$$f(\theta) = \sin(\theta)\cos(\sin(\theta))$$

(b)

$$g(x) = \frac{x \sin(x)}{1 + \cos(x)}$$