

Math 132

Quiz 2 – February 24, 2012

Name _____

1. (1 point) Is $y = e^{\sin x}$ a solution to the differential equation $y' = x + y$? In 1-2 sentences, explain why or why not.

2. Bound each of the following on the indicated interval.

Correct answers worth 0 points, correct reasons worth 3 points for each part.

(a) $|3x^2 \sin x - 12 \cos(-x)|$ on the interval $[-\pi, \pi]$.

(b) $|e^x - 2 + e^{-x}|$ on the interval $[0, 2]$.

(c) $|xe^{-x^2} + 3e^{x^2}|$ on the interval $[-1, 1]$.