

King Fahd University of Petroleum & Minerals

Department of Mathematical Sciences

MATH - 102-34

Semester 122

Quiz - 3

Name: \_\_\_\_\_ ID# \_\_\_\_\_

**Problem 1.** Set up, but do not evaluate, an integral for the area of the surface obtained by rotating about the x-axis the curve given by

$$y = \ln x, \quad 1 \leq x \leq 5.$$

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**Problem2.** Find

$$\frac{d}{dx} \left[ \left( \frac{1}{x+1} \right)^x \right]$$

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