

Math 111.17 Fall 2002

Quiz #7

Name: \_\_\_\_\_

You have 15 minutes to complete this quiz which is worth 15 points. Calculators are permitted, but no other aids are allowed. Show all work neatly and in order, and clearly indicate your final answers. Answers must be justified whenever possible in order to earn full credit.

**1.** (*15 points*) Sketch a graph of the function  $f(x) = xe^{-2x}$  on the following axes. Be sure to determine all roots, asymptotes, critical numbers, intervals of increase and decrease, inflection points, and intervals of concavity.

