

## November 5, 2014

Name \_\_\_\_\_

Score \_\_\_\_\_

Show all work to receive full credit. Supply explanations when necessary.

1. (5 points) Find the inflection point(s) of the graph of  $f(x) = xe^{2x}$ .
2. (5 points) Use the 2nd derivative to determine whether the graph of  $f(x) = x^2e^{-x}$  is concave up or concave down at  $x = 3$ .