Math 3100 Quiz 10

Name _____

1. Carefully state the definition of uniform convergence of a sequence of functions $\{f_n\}$ to a function f on a set A.

2. Prove that the sequence given by $f_n(x) = nx^2e^{-nx}$ converges to zero uniformly on the interval $[0, \infty)$.

3. Prove that the sequence given by $g_n(x) = nxe^{-nx}$ does not converges uniformly to zero on the interval $[0, \infty)$.