Name _____

Homework 14
Sections 4.1 & 4.2

1. (5) Use the Second-Derivative Test to classify the critical points of $f(x) = (x^3 - 4x - 8)e^{x+1}$

2. (5) Determine the global extrema of $f(x) = \frac{x}{10} - \sqrt{x} - \frac{3}{2}$ for $x \leq 64$.

3. (5) Find the global minimum and maximum of $f(x) = 4x^3 - 3x^2 - 90x + 21$ in the interval $-4 \leq x \leq 6$. Give the **coordinates** of each.

4. (5) Find the global minimum and maximum *values* of $f(t) = (t+2)^2(2t-11)^3 + 1234$ on $[-1, 5]$.