Math 222 - Quiz 2 Section: _____

Name: _____

Problem 1 Calculate $\int (x^2 + x + 1) e^x dx$.

Problem 2 Prove the formula:

$$\int x^{m} (\ln x)^{n} dx = \frac{x^{m+1} (\ln x)^{n}}{m+1} - \frac{n}{m+1} \int x^{m} (\ln x)^{n-1} dx$$