Math 1B: The Ultimate Quiz

Monday, April 27

1. (4 pts) Find the unique solution to the differential equation $xy' = y + x^2 \sin x$ given the condition $y(\pi) = 0$.

2. (6 pts) Find the unique solution to the differential equation $y'' - 2y' + y = 2e^x/x^3$ given the conditions $y(1) = 4e$ and $y(2) = \frac{9}{2}e^2$.