Math 202-102  Sec: 21  Quiz 3

Q.1: Find a linear differential operator that annihilates $2x^2 - e^{3x} + \sin(2x) - xe^{2x} \cos(3x)$

Q.2: Solve the differential equation $y'' + y = \sec(x)$. 
Q.3: Solve the initial value problem $x^2 y'' + xy' + y = 0$, $y(1) = 1$, $y'(1) = 2$.

Q.4: Use $x = e^t$ to transform the Cauchy-Euler equation $x^2 y'' + 10xy' + 8y = x^2$. 