Midterm II

Show all work.

You may work on your own paper.

Solve the following differential equations and initial value problems.

a) $y'' - 6y' + 13y = 0$

b) $y'' - 2y' + y = e^t$

c) $y'' - 3y' + 2y = 0$, $y(0) = 1$, $y'(0) = 2$

d) $y^{(8)} - 2y^{(4)} + y = 0$ (Please feel free to use electronic means to factor your characteristic polynomial.)