Problem 1. (2 points) Write the form of a particular solution suggested by the method of undetermined coefficients. DO NOT find the coefficients.

(a) \( y'' + 2y' = t^2 + t \)

(b) \( y'' - 4y' + 4y = te^{2t} - \sin(2t) \)

Problem 2. (3 points) Use variation of parameters to find a general solution to the differential equation

\[
y'' + 2y' + y = e^{-t}.\]