> The majority of the credit you receive will be based on the completeness and the
> clarity of your responses. Please use equal signs where appropriate and write
> solutions with a logical flow. Show your work, and avoid saying things that are
> untrue, ambiguous, or nonsensical.

1. Solve the following nonhomogeneous equations using the method of undetermined coefficients:

   (a) $y'' - 6y' + 9y = 5t^2 e^{3t}$

   (b) $y'' - y' - 12y = 2te^{-3t}$

   (c) $y'' + 2y' + 2y = 8e^{-t}\sin(t)$