Due Thursday, March 9 at the beginning of class.

1. Find the general solution of the equation.

   a) $y'' + 3y' + 2y = 6t^2 - 12t + 3$ b) $y'' + 3y' = t - 5$

   c) $y'' - y' - 12y = 14te^{-3t}$ d) $y'' - 3y' - 10y = (9t^2 + 3t + 6)e^{2t}$

   e) $y'' + 4y = 32\sin 2t - 32t\cos 2t$ f) $y'' + 9y = (t^2 + t)\cos t$

   g) $y'' - 3y' + 2y = te^t \sin t$ h) $y'' - 2y' + 2y = e^t \cos t$

   i) $y'' - 3y' = t + e^{3t}$ j) $y'' + 3y' + 2y = 3t + 1 + 5\sin t$