MATH 1B Fall 2015
Section 18 Name: _____

Method of undetermined coefficients and variation of parameters:
Find a particular solution to:

1. $y'' - 4y' - 12y = 2t^3 - t + 3.$

2. $y'' - 4y' - 12y = \sin 2t$

3. Solve the IVP $y'' - 4y' - 12y = 3e^{5t}, \quad y(0) = \frac{18}{7}, y'(0) = -\frac{1}{7}$

4. Find a particular solution to $y'' - 4y' - 12y = te^4t$

5. Use variation of parameters to solve: $y'' + 9y = 3\tan 3t$

6. $y'' - 2y' + y = \frac{e^t}{t^2 + 1}$

7. $y'' + y = 1 + \tan x$