

YOUR NAME: _____

George Voutsadakis

Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [4 points] Find the general solution of

$$y'' - 16y = 40e^{-4t}.$$

2. [4 points] Find the general solution of

$$y'' + 7y' + 10y = 30t^2 - 8t + 11.$$

3. [4 Points] Find the general solution of

$$y'' - 2y' + 2y = 85 \sin 3t.$$