

Name:

1. (3pts) Solve the boundary-value problem $4y'' + 4y' + y = 0$, $y(0) = 1$, $y(1) = 0$.

2. (3pts) Use the method of undetermined coefficients to find the general solution for $4y'' + 4y' + y = \cos x$.

3. (4pts) Use variation of parameters to find the general solution for $y'' + y = \frac{1}{\cos x}$.