

Each group only needs to submit ONE file containing your solutions!

Problem 1. Find the general solution to the ODE

$$y''' - y = t \cos t$$

by using Key Identity Evaluation. (you may need to express $\cos t$ in terms of complex exponentials.)

Problem 2. Consider the ODE

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

- (1) Find the Green's function associated with L .
- (2) Use the Green's function to give a particular solution.