

## Spring 2021 Math 20D Lecture B Homework #2

Due Sunday, 11:59pm, April 25th

Submit this homework through Gradescope, check the course website on how to submit homework.

**Topics covered: section 4.4**

1. Find a particular solution to the differential equation  $y'' + 2y' - y = 10 + x$ .
2. Find a particular solution to the differential equation  $2z'' + z = 9e^{2t}$ .
3. Find a particular solution to the differential equation  $4y'' + 11y' - 3y = -2xe^{-3x}$ .
4. Find a particular solution to the differential equation  $y'' + 4y = 8\sin(2t)$ .

**Note:** Due to the number of students in this class, a subset of the questions will be used to grade this assignment. This subset will be determined after all of the assignments have been submitted.