

QUIZ 6 - MATH 310

Friday, October 20

YOUR NAME: \_\_\_\_\_

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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. [6 points] Find the general solution of the linear homogeneous differential equation

$$y^{(4)} + 4y''' + 7y'' + 6y' + 2y = 0.$$

2. [6 points] Find the general solution of linear non-homogeneous differential equation

$$y''' - y'' - 10y' - 8y = 18e^{-2t}.$$