

**Practice Quiz 10** MATH 2280, ORDINARY DIFFERENTIAL EQUATIONS, SPRING 2024

NAME:

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**Problem 1. Exercise 24.1d** (10 points) Use variation of parameters to find the general solution for the following ODE, even if there is an easier method available. For your convenience the homogeneous solution is given.

$$y'' - 7y' + 10y = e^{3x}, \quad y_h = c_1 e^{2x} + c_2 e^{5x}$$

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**Solution:**

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**Problem 2. Exercise 26.8h** (10 points) Find the Laplace transform of the following.

$$3 \cos(2t) + 4 \sin(6t)$$

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**Solution:**