

Quiz 6, Math 246, Professor David Levermore
Thursday, 8 March 2018

Your Name:

Discussion Instructor (circle one):	Kilian Cooley	Corry Bedwell	Thien Ngo
Discussion Time (circle one):	8:00	9:00	10:00
			11:00

No books, notes, calculators, or any electronic devices.

Show your reasoning for full credit. Good luck!

- (1) [2] Given that e^{-t} is a particular solution of the equation

$$u'' + 6u' + 25u = 20e^{-t},$$

give a real general solution.

- (2) [3] Give the degree, characteristic, and multiplicity for the forcing term of the equation

$$v'' + 6v' + 25v = 7t^5 e^{-3t} \cos(4t).$$

- (3) [5] Find a particular solution of the equation

$$w'' - 4w' + 4w = 10e^{2t}.$$