MATH 310: EXAM 2 TOPICS AND SAMPLE PROBLEMS

- Introduction: Second-Order Differential Equations (section 3.1): # 1, 4, 10, 15, 17, 20, 24, 27, 29, 31, 33, 47, 49

- General Solutions of Linear Equations, principle of linear superposition, Wronskian (section 3.2): # 1, 6, 9, 13, 21, 30

- Homogeneous Equations with Constant Coefficients (section 3.3): # 3, 17, 21, 27, 33, 40, 43, 45

- Mechanical Vibrations (section 3.4): # 3, 5, 13, 17, 22, 35

- Nonhomogeneous Equations and Undetermined Coefficients (section 3.5): # 1, 5, 9, 18, 26, 29, 31, 53, 58, 61

- Forced Oscillations and Resonance (section 3.6): # 3, 7, 11, 19

Exam 2: Monday, March 25, in class