

Math 3280 Worksheet 16: Second order linear homogeneous ODEs
with constant coefficients.

Group members (1 to 3): _____

(1) Find the general solution to $y'' - y' - 20y = 0$.

(2) Use the general solution to solve the initial value problem $y(0) = 1$, $y'(0) = 1$.

- (3) Find a differential equation $y'' + ay' + by = 0$, where a and b are constants, such that $y = c_1 + c_2e^x$ is the general solution.