Math 3280 Worksheet 23: Second order linear homogeneous ODEs with constant coefficients.

Group members (2 to 4): _____

(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 $y = c_1 + c_2 e^x$ is the general solution.