

EEE 225 - Engineering Mathematics I  
(Differential Equations)  
Homework 5

24<sup>th</sup> Oct, 2022

Solve the followings,

$$\frac{d^2y}{dt^2} + 13\frac{dy}{dt} + 12y = 0, \quad y(0) = 1, \quad \dot{y}(0) = -2 \quad (1)$$

$$\frac{d^2y}{dt^2} - 12\frac{dy}{dt} + 36y = 0, \quad y(0) = 2, \quad \dot{y}(0) = -3 \quad (2)$$

$$\frac{d^2y}{dt^2} + 4\frac{dy}{dt} + 20y = 0, \quad y(0) = 3, \quad \dot{y}(0) = 2 \quad (3)$$