

Operational Properties I - Part II

1. Solve the given initial-value problem.

$$y' + 4y = e^{-4t}, y(0) = 2$$

2. Solve the given initial-value problem.

$$y'' + 2y' + y = 0, y(0) = 1, y'(0) = 1$$

3. Solve the given initial-value problem.

$$y'' - 6y' + 9y = t, y(0) = 0, y'(0) = 1$$

4. Solve the given initial-value problem.

$$y'' - 6y' + 13y = 0, y(0) = 0, y'(0) = -3$$

5. Solve the given initial-value problem.

$$y'' - y' = e^t \cos(t), y(0) = 0, y'(0) = 0$$