Dr. Z.'s Calc5 Homework assignment 5

1. Solve the initial-value problem

$$y' - 2y = \delta(t-3) \quad , \quad y(0) = -1 \quad .$$

2. Solve the initial-value problem

$$y' + y = \delta(t-1) + 2\delta(t-2) + 3\delta(t-3) \quad , \quad y(0) = -1 \quad .$$

3. Solve the initial-value problem

$$y'' + 4y = \delta(t-\pi) \quad , \quad y(0) = 0 \quad , \quad y'(0) = 0 \quad .$$

4. Solve the initial-value problem

$$y'' + 4y' + 4y = \delta(t-2) \quad , \quad y(0) = 0 \quad , \quad y'(0) = 0 \quad .$$

5. Solve the initial-value problem

$$y'' + 2y' + 2y = \delta(t-\pi) \quad , \quad y(0) = 0 \quad , \quad y'(0) = 0 \quad .$$