Math 276 Discussion Worksheet 16

1. Simplify the expression or solve the equation.

$$\textbf{a.} \ \frac{1-i}{1+i} \qquad \textbf{b.} \ (1+i)^8 \qquad \textbf{c.} \ z^3 = 8 \qquad \textbf{d.} \ e^z = -e \qquad \textbf{e.} \ z^2 + 2z + 2 = 0$$

2. Solve the following initial value problem.

$$y'(t) + y(t) = 1 + t, \ y(0) = 0$$

3. Solve the following initial value problem.

$$y''(t) + y(t) = t, \ y(0) = 0, y'(0) = 0$$