Problem 1. (2 points) Solve the initial value problem
\[ y'' - 2y' + 2y = 0, \quad y(\pi) = e^\pi, \quad y'(\pi) = 0. \]

Problem 2. (3 points) Find a general solution for the differential equation
\[ y''' + 4y'' - 11y' + 6y = 0. \]