1. Solve the system \( \frac{dx}{dt} = 2x + y \)
\( \frac{dy}{dt} = -x \)

2. Given that \( \lambda = 1+i \) is an eigenvalue of \( A = \begin{pmatrix} -2 & 5 \\ -2 & 4 \end{pmatrix} \), find the general solution of \( X' = AX \).