KFUPM/ Department of Mathematics & Statistics ID # Serial #
MATH 202/ Quiz 4a/ 111 Name

1. Solve the system $\begin{aligned} \frac{dx}{dt} &= 2x + y \\ \frac{dy}{dt} &= -x \end{aligned}$

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