

MATH 335 Quiz 6**Name:**

Show all work. 20 points .

1) Solve the initial value problem $\mathbf{x}'(t) = A\mathbf{x}(t)$ with $\mathbf{x}(0) = (3, 2)$ and $A = \begin{bmatrix} 2 & 3 \\ -1 & -2 \end{bmatrix}$

2) Find the distance between $\begin{bmatrix} 10 \\ -3 \end{bmatrix}$ and $\begin{bmatrix} -1 \\ -5 \end{bmatrix}$.