KFUPM/ Department of Mathematics & Statistics/ 172/ MATH 260/ Quiz 3Name:ID #:Serial #:

1. [10pts] Verify that $X = e^t \begin{bmatrix} 5\cos t \\ 3\cos t - \sin t \end{bmatrix}$] is a solution of the system $X' = AX$ where $A =$	$\begin{bmatrix} -2\\ -2 \end{bmatrix}$	$\begin{bmatrix} 5\\4 \end{bmatrix}$	
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2. [10pts] Find the general solution of the system X' = AX, where $A = \begin{bmatrix} 2 & 1 \\ -1 & 0 \end{bmatrix}$.