KFUPM/ Department of Mathematics & Statistics/ 151/ MATH 260-06/ Quiz 2

Name: **ID #:** **Serial #:**

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1. Find the value of k for which the matrix $\begin{bmatrix} 2 & 0 & k \\ 0 & 1 & -1 \\ 1 & -1 & -1 \end{bmatrix}$ is not invertible.

2. Let W be the set of all vectors (a, b, c, d) such that $ab = cd$. Is W a subspace of $\mathbb{R}^4$? Justify your answer.