

Name: _____
Student ID: _____

Quiz 10

This quiz is graded out of 10 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. §4.2 #2b Use the Subspace Test to determine which of the following are subspaces of $\mathcal{M}_{n \times n}$.
The set of all $n \times n$ matrices A such that $\det(A) = 0$.

Question 2. §4.2 #12 Suppose that $\vec{v}_1 = (2, 1, 0, 3)$, $\vec{v}_2 = (3, -1, 5, 2)$, and $\vec{v}_3 = (-1, 0, 2, 1)$. Is the following vector in $\text{span}(\vec{v}_1, \vec{v}_2, \vec{v}_3)$.

$(1, 1, 1, 1)$