

Quiz 12

This quiz is graded out of 6 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 #2g Determine whether the following is subspaces of $\mathcal{M}_{n \times n}$. The set of all $n \times n$ matrices A such that $AB = BA$ for some fixed $n \times n$ matrix B .

Question 2. §4.3 #28 Prove that in $\mathcal{P}_2$ every set with more than three vectors is linearly dependent.