Quiz 5

MA 262
Artur's Class

February 21, 2012

Problem 1

Put

$$A = \begin{pmatrix} 1 & 2 & 3 & 4 \\ 0 & 5 & 6 & 7 \\ 0 & 0 & 8 & 9 \\ 0 & 0 & 0 & 1 \end{pmatrix}.$$

Compute $\det(A)$

Problem 2

Recall $C(\mathbb{R})$ is the real vector space of continuous functions on $\mathbb{R}$. The polynomials of degree ≤ 2 form a subset. Show that this is also a subspace.

Problem 3

What about for polynomials of degree $= 2$? Explain.