

Homework 7

July 13, 2016

Problem 1.

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Problem 5.

Let

$$\det(\mathbf{A} - x \mathbf{I}_n) = x^n + \sum_{0 \leq k < n} a_k x^k$$

describe how to obtain using Laplace expansions an $n \times n$ matrix \mathbf{A} satisfying the constraint above such that \mathbf{A} is not a diagonal matrix and \mathbf{A} has at most $2n - 1$ non zero entries.