

Linear Algebra: Determinants

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Created: 20th July 2022

Last updated: 20th July 2022

1 Introduction

- Let A be an square $(n \times n)$ matrix comprised of the column vectors $v_1, v_2, \dots, v_n \in \mathbb{F}^n$. For square matrices we define a measure called the determinant, denoted $\det A$, such that it satisfies the following properties:
 1. **Linearity in each column:**
 2. **Antisymmetry:**
 3. **Normalization:**