# MAT250S25 Proof 1

Kishan S Patel

January 22, 2025

Let $\mathbb{R}^n$ be any Euclidian Space, and let $\vec{v}_1, \vec{v}_2, \vec{v}_3 \in \mathbb{R}^n$ be vectors such that the set of vectors $\{ \vec{v}_1, \vec{v}_2, \vec{v}_3 \}$ is linearly independent.

Prove that the set of vectors $\{ \vec{v}_1, \vec{v}_2, \vec{v}_1 + \vec{v}_3 \}$ is linearly independent.

*Proof.* □