## **Linear Algebra - Chapter 1**

Introduction to Linear Algebra

MATHPATH - Engineering Mathematics Learning Platform

## 1. Vector Spaces

A vector space is a collection of objects called vectors, which may be added together and multiplied by numbers, called scalars. Scalars are often taken to be real numbers, but there are also vector spaces with scalar multiplication by complex numbers, rational numbers, or generally any field.

## 2. Linear Independence

A set of vectors is linearly independent if none of the vectors in the set can be written as a linear combination of the other vectors.

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