

# Linear Algebra Notes

Priyanshu Prasad Gupta

25 September, 2023

## 1 Introduction

### 1.1 Linear Equation

- A Linear Equation is an equation that can be written in the form

$$a_1x_1 + a_2x_2 + \dots + a_nx_n = b$$

- The number  $a_1, \dots, a_n$  are called coefficients.

#### 1.1.1 Example

$$-x_1 + \pi x_3 - \sqrt{2}x_4 = 0.007$$

Here the coefficient of first term  $x_1$  is  $-1$ , coefficient of  $x_3$  is  $\pi$  and coefficient of  $x_4$  is  $\sqrt{2}$ .