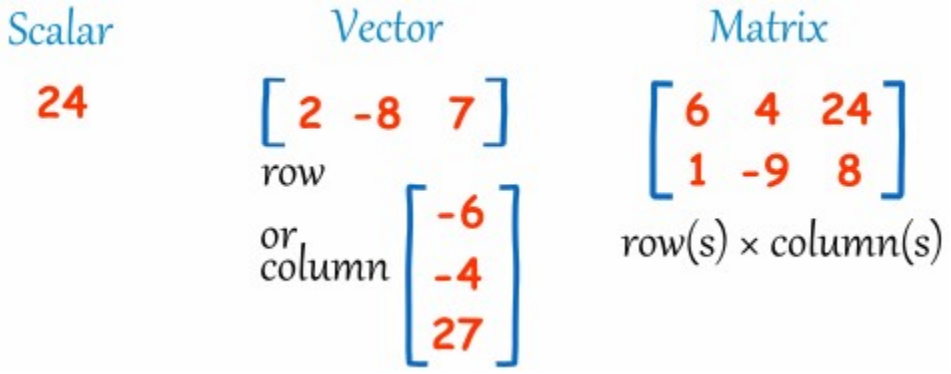
Introduction

Linear Algebra is an important topic to understand, a lot of deep learning algorithms use it, so this chapter will teach the topics needed to understand what will come next.

Scalars, Vectors and Matrices

- **Scalars: A single number**
- **Vector: A 1D array of numbers, where each element is identified by an single index**
- **Matrix: A 2D array of numbers, below we have a (2-row)X(3-col) matrix. In matrices a single element is identified by two indexes instead of one.**



Dimensions	Example	Terminology
1	0 1 2	Vector
2	0 1 2 3 4 5 6 7 8	Matrix
3	0 1 2 3 4 5 6 7 8	3D Array (3rd order Tensor)