

Year 12 Maths

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Chapter 1

Extension 1

1.1 Vectors

1.1.1 Introduction

Definitions

Scalar \rightarrow A quantity that only has magnitude

Vector \rightarrow A quantity that has a magnitude as well as a direction

Vectors can be represented geometrically by using a segment of a line. The size is the segment's length and the direction is indicated by a line and arrow.

There are three main notations of vectors: \overrightarrow{AB} , \vec{a} , or bolded letters (Uncommon, but part of syllabus).

When using vectors, only size and direction matter, not where the vector starts and ends.

The negative of a vector has the same magnitude but in the opposite direction, ie. $\overrightarrow{AB} = -\overrightarrow{BA}$

Chapter 2

Extension 2

2.1 Complex Numbers