# **STARMAST**

This is a Quarto website.

To learn more about Quarto websites visit <a href="https://quarto.org/docs/websites">https://quarto.org/docs/websites</a>.

Sigma notation

Quadratic formula – questions

Guide: Introduction to quadratic equations (pdf, word)

Questions: Introduction to quadratic equations (pdf, word)

Answers: Introduction to quadratic equations (pdf, word)

# List of topics / sections

#### **Vectors**

#### Initial

- What is a vector? (vector notation, positive, negative, zero, addition, scalar multiplication)
- Geometric properties of vectors (relation to 3D geometry, ijk/column vector notation, length, unit vectors)

#### **Operations**

- The scalar product
- The vector product
- Triple products

#### Geometry

- Vector equations of lines
- Vector equations of planes
- Solving geometric problems with vectors

## **Algebra**

#### **Arithmetic**

- Sigma notation
- Pi notation

### Lana's list

## easy enough to learn but still useful

- Sets
- Proofs
- Differentiation and derivatives
- Logs and exponentials

### **Others**

- Integrals
- Vectors
- Matrices
- Linear Algebra

### General mathematical notation such as

- Greek symbols and their names
- Sigma notation
- The lines and hats over letters (sorry don't know the word)
- Indexing in equations

# **Question words**

### Question words

- Prove that...
- Verify that...

■ Compute
<ul><li>Deduce</li></ul>
■ Calculate
■ Explain
<ul><li>Justify</li></ul>
■ Conclude
Is this true? Or false?
<ul><li>Using X or otherwise</li></ul>
■ Define
State

■ Evaluate...

■ Show that...

■ Calculate...

■ Find...

■ Exhibit...

■ Describe...

■ Sketch...