

# STARMAS

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[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...

- Evaluate...
- Show that...
- Calculate...
- Find...
- Exhibit...
- Describe...
- Sketch...
- Compute...
- Deduce...
- Calculate...
- Explain...
- Justify...
- Conclude...
- Is this true? Or false?
- Using X or otherwise...
- Define...
- State...