### FREQUENTLY ASKED QUESTIONS

# <u>Maths</u>

#### Q 1. What do I need to study Maths at Loreto?

You should enjoy the subject and we recommend you study the subject if you are expected to achieve a grade 7 or higher at Maths GCSE. We will consider applications from students that achieve a grade 6 if that student has also achieved grade 6's across the science subjects.

#### Q 2. Why should I study A-level Maths at Loreto?

Maths is such a well-respected and fantastic qualification because a student who has succeeded at the subject has demonstrated strong problem-solving and logical reasoning skills. Maths goes well with a high number of other subject qualifications. It is a pre-requisite of most Engineering and Computer Science based university course. Maths also goes extremely well with most Social Science courses such as Geography, Psychology, Accounting, Economics and Business Studies.

#### Q 3. What makes the Maths department at Loreto so special?

We have a long track record of getting well above average A\*- B rates at Loreto. We have an extremely enthusiastic, supportive and well qualified group of teachers with a fantastic building to teach Mathematics in. All our students are incredibly highly motivated to do well. We have a very positive work environment to work in. Students get folders at the beginning of each year with bespoke notes written by teachers that they work through in each lesson. We have clear schedule of work that all staff and students stick rigidly to.

## Q 4. What is the main difference between Maths GCSE and A-level Maths?

The main topics that are taken forward into the Maths A-level that you know from GCSE are solving equations, working with quadratic equations and trigonometry. We very much build on your experience of working algebraically by studying Pure Maths topics



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at A-level. Two-thirds of the A-level is Pure Maths, the remaining third is split between Mechanics and Statistics. Mechanics is more closely related to GCSE Physics - in particular, we look closely at speed, distance, forces and time. Statistics continues to look at probability, averages and scatter diagrams, but in greater depth.

#### Q 5. What is a typical Maths lesson like?

An A-level Maths class typically contains between 20 and 25 students and will usually start with student answering a number of short memory retrieval questions on mini-whiteboards. We then explore a new topic together through exploration activities with the teacher carefully scaffolding and questioning students so that students are carefully guided to new techniques building on past knowledge. We use a wide variety of activities to aid the students and use a high number of real-life scenarios to help the students relate the subject to their own experiences or future career fields.

#### Q 6. What extra support will do students get?

Our teaching staff are incredibly quick to support students in lessons, which includes getting the support of surrounding students in class. We run regular weekly lunchtime drop in sessions where students come in and ask questions from lessons and homework tasks. In addition, students who are finding the course difficult go to extra lessons in the second year of study to lift their performance. Finally, we offer extensive revision lessons in the run up to the final exams, at the end of the second year of study.

## Q 7. Are there any resources that are recommended to prepare for A-level Mathematics?

To do well at A-level Mathematics you need strong algebraic and problem-solving skills. Any GCSE Maths revision guide is suitable, however two good specific A-level Maths preparation books are:

**CGP Head Start to A-level Maths** 

Preparation for AS/A level Maths Alpha workbook

We will also give you a welcome pack of preparation questions at enrolment.



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## Q 8. Is there any equipment that you recommend for A-level Mathematics?

A graphical calculator is extremely helpful in A-level Maths. It saves you a great deal of time and worry in exams, allowing you precious thinking time and many ways of checking your work is correct. We highly recommend the following models:

Casio fx-9860GII or the Casio fx-CG50. We also sell these through the College at the beginning of the course.

#### Q 9. Which examination board do you use?

We use AQA for A-level Mathematics and Pearson Edexcel for A-Level Further Mathematics.

