MATHEMATICS AT PARKSTONE

“Adults who have a mathematics A level earn almost 10 per cent more on average than people who are like them in every other way”

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Courses

- MATHS A LEVEL
- FURTHER MATHS A LEVEL
- CORE MATHS

How Will I be taught in Maths?

- Students are taught using a variety of strategies and activities, throughout the course:
- Students explicitly know what and why they are learning from each topic.
- Regular reviews at the start of lessons help connect with previous work completed.
- Clear and detailed instructions and explanations are given throughout classes.
- Time is given for guided practice using a variety of resources.
- Scaffolding is often used to support students learning and help to build confidence with more challenging questions.
- Group work and using white boards allows students to share ideas and find solutions to multi stage problems.
- Modelling exam questions allows students to apply their knowledge in a variety of real life situations.
- MICAs allow students to practice their recall of facts on one topic only.
- Tuesday lunchtime Drop in Sessions help support students with their studies.

MATHS A LEVEL

- Chosen as one of your 3 A level options
- Linear qualification, the examinations will be at the end of Year 13
- The examination board is Edexcel
- **Pure Mathematics 1** (2 hour exam)
- **Pure Mathematics 2** (2 hour exam)
- **Statistics and Mechanics** (2 hour exam)

- Each module is worth 33.3% of the final mark.
- 9 lessons per 2 week cycle

- PURE CONTENT

Content overview

- Topic 1 – Proof
- Topic 2 – Algebra and functions
- Topic 3 – Coordinate geometry in the (x, y) plane
- Topic 4 – Sequences and series
- Topic 5 – Trigonometry
- Topic 6 – Exponentials and logarithms
- Topic 7 – Differentiation
- Topic 8 – Integration
- Topic 9 – Numerical methods
- Topic 10 – Vectors

MATHS A LEVEL

- APPLIED CONTENT

Content overview

Section A: Statistics

- Topic 1 – Statistical sampling
- Topic 2 – Data presentation and interpretation
- Topic 3 – Probability
- Topic 4 – Statistical distributions
- Topic 5 – Statistical hypothesis testing

Section B: Mechanics

- Topic 6 – Quantities and units in mechanics
- Topic 7 – Kinematics
- Topic 9 – Forces and Newton's laws
- Topic 9 – Moments

MATHS A LEVEL

FURTHER MATHS A LEVEL

- You must study maths A level as well
- Further Maths can be picked as one of your 3 A level options

or

- As a fourth A level
- The examination board is Edexcel

- **100% exam based**
- **Linear qualification,** the examinations will be at the end of Year 13
- **Further Pure Mathematics 1** (1½ hour exam)
- **Further Pure Mathematics 2** (1½ hour exam)
- **Decision Maths 1** (1½ hour exam)
- **Further Mechanics 1** (1½ hour exam)

- Each module is worth 25% of the final mark.
- 18 lessons per 2 week cycle

FURTHER MATHS

- CORE PURE CONTENT:

- Proof
- Complex numbers
- Matrices
- Further algebra and functions
- Further calculus
- Further vectors
- Polar coordinates
- Hyperbolic functions
- Differential equations

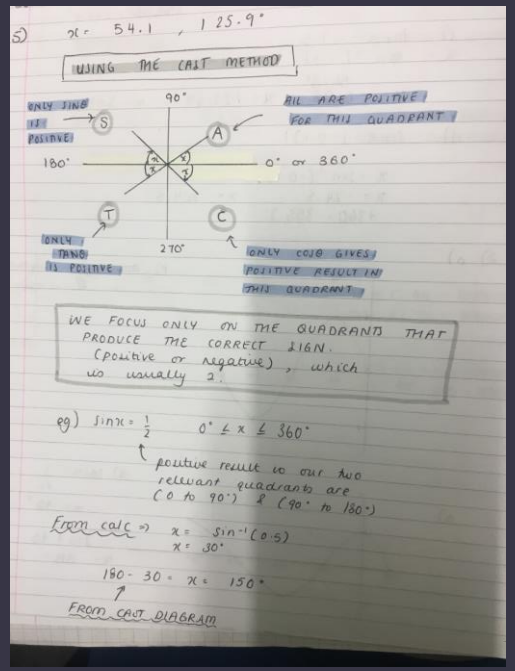
CORE MATHS

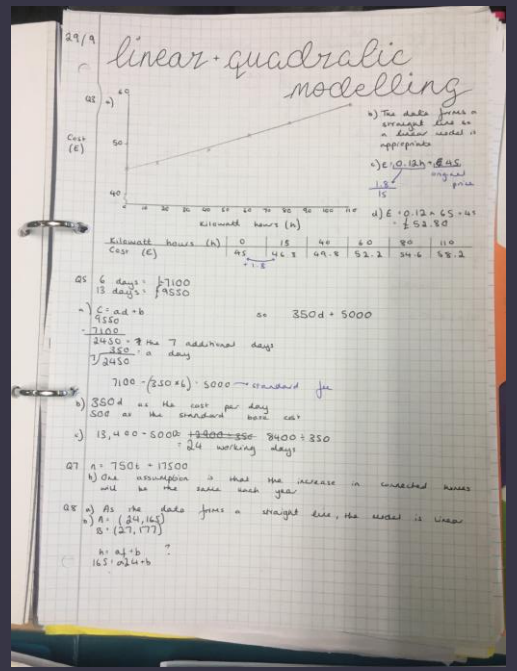
- Core maths, or maths studies, can be chosen as your curriculum enhancement option
- It is a taught course which is 100% exam based at the end of Year 12
- The examination board is AQA
- It is equivalent to an AS level in terms of difficulty and UCAS points
- It is suitable for anyone with a good pass at GCSE who has not opted for A level maths, You cannot do core Maths and A level Maths
- It supports courses such as psychology, chemistry, physics, biology and geography
- It will help you be better prepared for higher education and employment
- You will apply the maths you know in practical settings to solve everyday problems

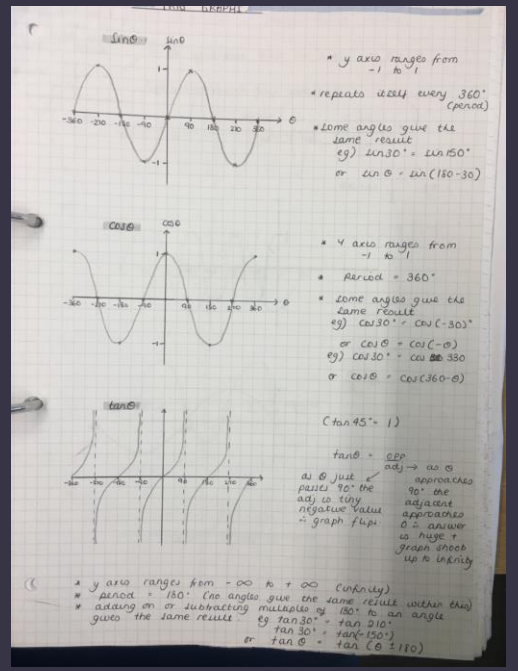
Parkstone Grammar Sixth form

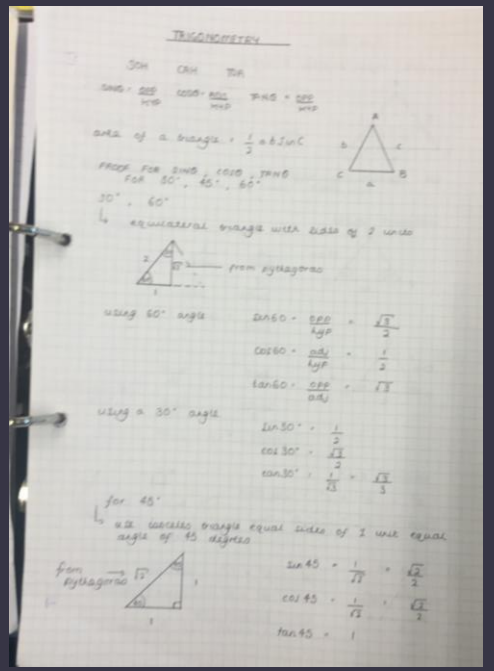
- Fulfil your potential
- Become an independent learner
- MICAs will help support and regular assess topics throughout Year 12 and 13
- Modular tests, 7 in total over the 2 years, will give students experience in solving A level questions and give evidence for predicted grades
- A graphics calculator will need to be bought, we use the Casio classwiz fx-991EX
- Ask thought provoking questions in class and get involved in classroom discussion
- Enjoy your Mathematics

Year 12 A Level Mathematics Work

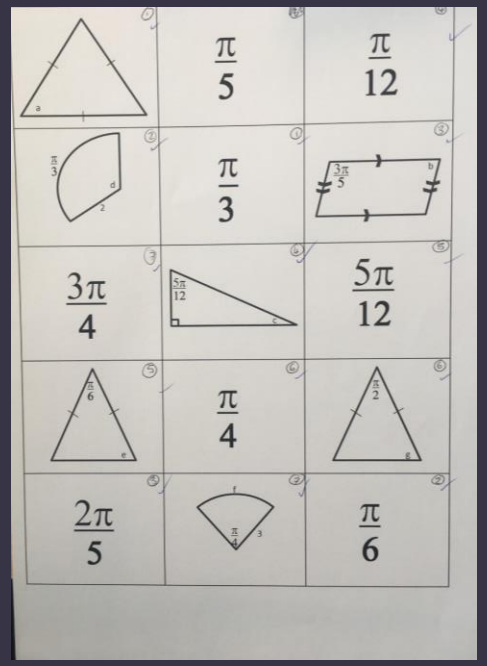


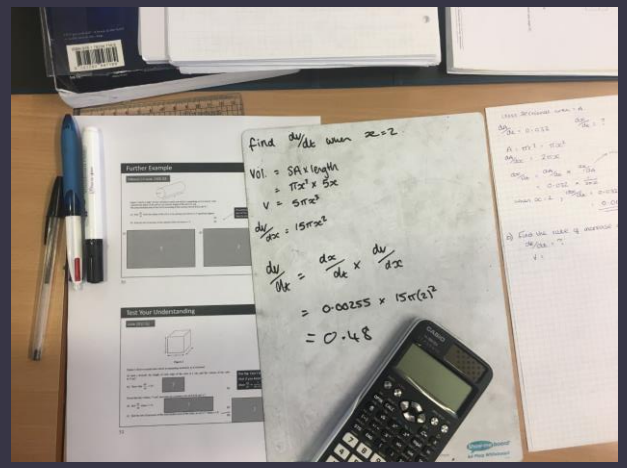


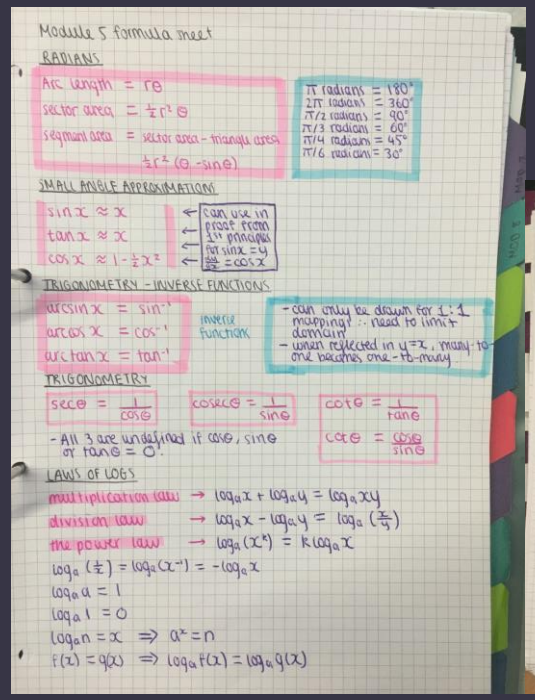


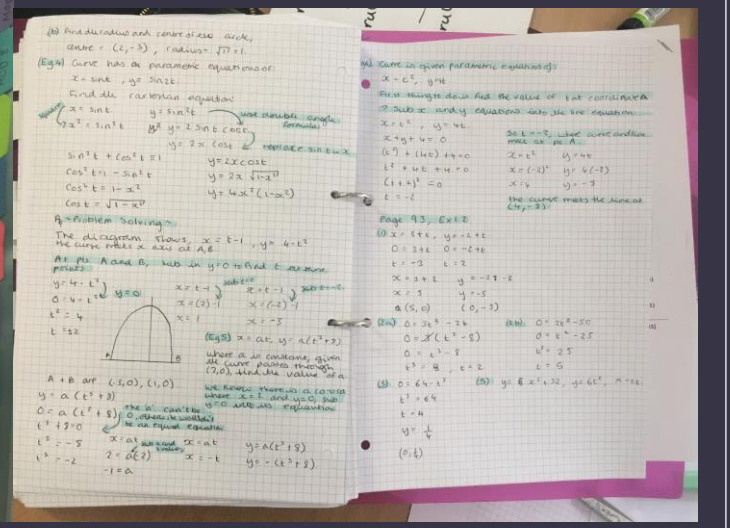


Year 13 A Level Mathematics Work









Don't worry about the mathematical content yet, this will all eventually make sense!

Where maths can lead to: