



Subject	Maths		
Title/Topic	Format	Length	WC
Pure Paper 1	Written exam	2 hrs	
Pure Paper 2	Written exam	2 hrs	
Applied paper (stats/mech)	Written exam	2 hrs	

### In this Advent assessment I will be asked to show I can...

#### Pure Maths Papers 1 & 2 (all content EXCEPT year 13 integration)

Binomial Expansion

Functions – Domain, Range, Inverse etc

Co-ordinate Geometry

Proof

Differentiation from first principles

Differentiation – Trigonometry, exponentials

Chain rule, Product rule, Quotient rule

Mathematical modelling with Trigonometry

Mathematical modelling with logarithms

Sequences

Graph sketching

Modulus – graphs and solving

Integration

Implicit differentiation



Use of discriminant

Maxima & minima

Trigonometrical identities

Trigonometrical equations

Factor theorem

Parametric differentiation

Partial fractions

Numerical methods

3D vectors

**Statistics & Mechanics – all year 12 content**

Sampling methods

Resultant forces

Averages & Standard deviation

Velocity-time graphs

Probability – independence & mutually exclusive

Newton's Laws

Venn diagrams & Set notation

$F=Ma$

Large data set

Suvat

Hypothesis testing

Variable acceleration

Trailers & forces

Pulleys



### What should I do to revise and prepare for this assessment?

To prepare for this assessment:

1. Review the work you have completed in class this term. Work through the practice questions you have been provided after each lesson again so that you have a deep understanding of all the topics covered.
2. Complete and revisit the integral assessments for the first two units covered this year.
3. Complete questions from your text book.
4. Use revision techniques such as flashcards on problematic topics.

### What useful websites/resources could I use to help me prepare?

[www.integralmaths.org](http://www.integralmaths.org)

<https://www.mathsgenie.co.uk/newalevel2.php>

[Year 2 A Level Pure | Naiker](#)

Text book pdf (saved online)