

## 43 Topics. 30 Hours. 1 Month.

If this is not your ultimate H2 Math revision program for A'levels, then we don't know what is!

No.	Topics					Day/Date/Time	
1	Sequences & Series	1. 2.	Arithmetic Progression, Geometric Progression,	3. 4.	Summation, Method of Difference,	A: Thu 5 <sup>th</sup> Oct 6 – 9 pm	B: Fri 20 <sup>th</sup> Oct 10 – 1 pm
2	Functions and Graphs	5. 6. 7. 8.	Functions, Graph Transformations, Inequalities, System of Linear Equations,	9. 10. 11.	Curve Sketching, Power Series, Small Angle Approximations,	A: Sat 7 <sup>th</sup> Oct 2 – 5 pm	B: Tue 31 <sup>st</sup> Oct 10 – 1 pm
3	Differentiation	12. 13.	Techniques of Differentiation (includes implicit and parametrically), Maxima and Minima,	14. 15. 16.	Tangents and Normals, Connected Rate of Change, Maclaurin Series,	A: Thu 12 <sup>th</sup> Oct 6 – 9 pm	B: Fri 3 <sup>rd</sup> Nov 10 – 1 pm
4	Integration	17.	Techniques of Integrations (including substitution and by parts),	18. 19.	Area under parametric curve or polynomials, Volume of revolutions,	A: Sat 14 <sup>th</sup> Oct 2 – 5 pm	B: Mon 30 <sup>th</sup> Oct 10 – 1 pm
5	Differential Equations & Conics	20.	Solving general and particular solutions of differential equations (including substitution)	21. 22.	Formulating differential equations from word problems Hyperbola and Ellipse	A: Thu 19 <sup>th</sup> Oct 6 – 9 pm	B: Tue 24 <sup>th</sup> Oct 10 – 1 pm
6	Complex Numbers	23.	Basic properties of complex number (complex roots of polynomial equations, conjugate roots etc),	24. 25.	Understanding and manipulation of complex number in Polar, Exponential & Cartesian form, Understanding Argand diagram and its properties,	A: Sat 21⁵t Oct 2 – 5 pm	B: Sun 29 <sup>th</sup> Oct 2 – 5 pm
7	Vectors	26. 27. 30.	Basic properties of vectors (including unit vectors, ratio theorem etc), Scalar and Vector product of vectors, Understanding	28. 29.	Finding foot of perpendicular, length of projection and shortest distance etc, Angle between lines, planes and etc,	A: Fri 27 <sup>th</sup> Oct 6 – 9 pm	B: Wed 1 <sup>st</sup> Nov 10 – 1 pm
8	Probability and Permutations & Combinations	31.	independent and mutually exclusive events, Using tree diagrams, tables of outcome, Venn diagram for calculations,	32. 33. 34.	Conditional probabilities, Discrete Random Variables, Permutation and Combinations of objects in line or circles,	A: Sat 28 <sup>th</sup> Oct 2 – 5 pm	B: Tue 10 <sup>th</sup> Oct 2 – 5 pm
9	Binomial and Normal Distribution	35. 36.	Properties of Binomial and Normal distribution, Usage of Central Limit Theorem,	37.	Assumption of Binomial and Normal Distribution under context of the question,	A: Thu 2 <sup>nd</sup> Nov 6 – 9 pm	B: Sun 15 <sup>th</sup> Oct 2 – 5 pm
10	Hypothesis Testing and Linear Regression & Correlation	38. 39. 40.	Sampling (including finding unbiased sample mean and variance), Concepts of null and alternative hypotheses (including 1-tail & 2-tail tests), Calculating test statistics, critical region, level of significance and o-value.	<ul><li>41.</li><li>42.</li><li>43.</li></ul>	Understanding scatter diagrams between 2 variables (including use of suitable transformation to achieve linearity), Finding & understanding the concepts of product moment correlation coefficient, Concepts of interpolation & extrapolation.	A: Sat 4 <sup>th</sup> Nov 2 – 5 pm	B: Mon 16 <sup>th</sup> Oct 10 – 1 pm

## 2023 A'Level H2 Math Revision Class



Bundle Promotions								
Package	Individual	Buddy*						
<b>Hi - Five</b> (any 5 lessons)	\$ 40 off	\$ 90 off						
Mix & Match (any 8 lessons)	\$ 180 off	\$ 370 off						
Grandmaster (all 10 lessons)	\$ 280 off	\$ 600 off						
All current students enjoy another \$50 off (min 5 lessons)								

For example, John (current AO Studies' student) joins with his buddy before 1<sup>st</sup> Oct and register for all lessons (Grandmaster) He receives \$600 + \$50 = \$650 discount!

He pays only 10 \* \$200 - \$650 = <u>\$1350</u>

\*At most 1 of you can be AO Studies current Math class student

Each lesson is \$200.