

IB Diploma HL (3rd edition)					
Chapter	Title	Syllabus	Start Page	Notes	TOK
1	Quadratics	2.2, 2.5, 2.6, 2.7	17	Shifted to first chapter to provide familiar introduction to course.	
2	Functions	2.1, 2.2, 2.4, 2.7	51		
3	Exponentials	1.2, 2.4	95		Mathematical proof
4	Logarithms	1.2, 2.4, 2.6	123		Is mathematics an invention or a discovery?
5	Transforming Functions	2.2, 2.3	151		
6	Complex numbers and polynomials	1.5, 1.8, 2.5, 2.6	173		
7	Sequences and series	1.1	213		The nature of infinity
8	Counting and the binomial expansion	1.3	243		
9	Mathematical induction	1.4	265		How many terms do we need to consider before a result is proven?
10	The unit circle and radian measure	3.1, 3.2	279		Measures of angle - mathematics in nature
11	Non-right angled triangle trigonometry	3.7	305		
12	Trigonometric functions	3.4, 3.5	325	General trigonometric functions are introduced in the context of transformations.	Mathematical language and symbols
13	Trigonometric equations and identities	3.3, 3.6	353		Mathematics in society
14	Vectors	4.1, 4.2, 4.5	383	Significant restructure of vectors chapters, including quicker introduction to 3-D vectors.	
15	Vector applications	1.9, 4.3, 4.4, 4.5, 4.6, 4.7	433	Better grouping of vector applications. Includes row reduction for the intersection of 2-D lines and 3-D planes.	Are algebra and geometry separate areas of learning? Independent development of mathematics
16	Complex numbers	1.6, 1.7	479		
17	Introduction to differential calculus	6.1	507	Restructured introduction to calculus so no areas under curves until all differential calculus is done. Includes derivation from first principles.	Zeno's paradox
18	Rules of differentiation	6.1, 6.2	529	All of the different derivative functions are now introduced together.	
19	Properties of curves	6.1, 6.3	563	Applications of differential calculus are split into curve properties then real work problems.	
20	Applications of differential calculus	6.3, 6.6	591		The scientific method
21	Integration	6.4, 6.5, 6.7	627	Includes integration by parts.	
22	Applications of integration	6.5, 6.6	671		
23	Descriptive statistics	5.1	703		Misleading statistics
24	Probability	5.2, 5.3, 5.4			Applications of probability
25	Discrete random variables	5.5, 5.6		Removed tables of probabilities for distributions since all are now done by graphics calculator.	
26	The normal distribution	5.5, 5.7			
27	Miscellaneous questions				
	Answers				
	Index				

Additional Notes:

- * Regrouping by syllabus topic so far as is possible. Topic 1 was unavoidably broken since we require trigonometry before $\cos(\theta)$
- * Theory of knowledge ideas included within the text.
- * Matrices included on CD
- * Calculator instructions on CD