



Dear Students,

Welcome back to IB Mathematics: Analysis & Approaches! As we have completed the majority of the IB curriculum last year, over the summer you should focus on improving your weaknesses as well as organize your notes from Year 1. Two suggestions for you to do are to 1. create flashcards and 2. complete some practice questions from past exams. If you would like to have a textbook for the summer, stop by and I would be happy to issue you one.

NOTE: Repeated smaller study and practice sessions are better for long term retention than isolated long study sessions. Do a little **often!**

Flash Cards

Creating flashcards to define, show processes, sketch graphs, of terms would be very helpful. Included in all of the following processes, be able to find, determine, or calculate each of the definitions with or without a calculator. I encourage you to review your flashcards **regularly!**

Definitions				
Function	Linear Function	Quadratic Function	Rational Function	Logarithmic Function
Exponential Function	Asymptote	Domain	Range	Interval Notation
Set Notation	Inverse Functions	Parallel Line Slopes	Perpendicular Line Slopes	Axis of Symmetry
Vertex	Correlation Coefficient	Quota Sampling	Convenience Sampling	Stratified Sampling
Systematic Sampling	Simple Random Sampling	Mean	Median	Mode
Standard Deviation	Lower Quartile (Q1)	Upper Quartile (Q3)	Interquartile Range (IQR)	Variance
Outlier	Line of Best Fit	Skew	Sine Law	Cosine Law
Surface Area	Volume	Bearings	SOH CAH TOA	Conditional Probability

Graphs				
Linear Function	Quadratic Function	Rational Function	Logarithmic Functions	Exponential Function
Histogram	Box & Whisker Plot	Ogive or cumulative Frequency Graph	Probability Tree Diagrams	Composite Functions

Processes				
Function Notation	$f(g(x))$	Identify Asymptotes	Finding $f^{-1}(x)$ algebraically	Finding $f^{-1}(x)$ graphically
Write a linear function in point-slope form	Solve by factoring	Solve by Quadratic Formula	Find the midpoint between two points	Find the distance between two points
Graph quadratics from standard, vertex, or factored form	Write equation of axis of symmetry	Write equation of asymptotes	Find the area of a triangle	Determine an unknown angle/side of a triangle using sine/cosine law
Solving logarithmic Equations	Solving exponential equations	Completing a VENN Diagram	Conditional probability	Determine the correlation coefficient

Practice Questions

Complete practice questions from past exams by using either of the following websites. Focus on your weaknesses from year 1.

- Revision Village: <https://www.revisionvillage.com/ib-math/analysis-and-approaches-sl/>
- My Own Website with Access to Notes and Assignments: <https://mrkeeleysclassroom.weebly.com/>

Enjoy your summer and see you in September!

Mr. M. Keeley

IB Mathematics Teacher

Michael.keeley@abbyschools.ca