IB Analysis Calculus

Modeling and Exploration Reporting Standard

PS 1 Use technology to solve problems

PS 2 Understand applications of angle properties

PS 3 Review of foundational calculus and probability

PS 4 Review of graphical applications of advanced algebraic and Trigonometric properties, and application of foundations of calculus, geometry, probability and technology

PS 5 Calculate limits

PS 6 Show in-depth knowledge of mathematical concepts, ideas, and issues

PS 7 Reflect on skills and techniques to assess and understand strengths and limitations to support my learning and personal development

PS 8 Apply critical thinking to solve creative problems and make decisions that highlight ability to reason (find solutions) complex problems

Derivatives Reporting Standard

PS 9 Understand and apply the definition of derivatives

PS 10 Know common derivative rules for powers and trigonometric functions

PS 11 Use the product, quotient, and chain rules

PS 12 Find the slope and equation of a tangent line

PS 13 Solve related rate problems using derivatives

PS 14 Use technology to calculate derivatives

Applicaytions of Derivatives Reporting Standard

PS 15 Find local and global extrema

PS 16 Find and apply concavity

PS 17 Identify asymptotes of a rational function and apply them to graphs

PS 18 Solve contextual maximization problems

Integrals Reporting Standard

PS 19 Find anti-derivatives

PS 20 Use u-substitution

PS 21 Find definite integrals

PS 22 Use technology to calculate integrals

PS 23 Find the area between curves

Applications of Integrals Reporting Standard

PS 24 Apply derivatives as a rate of change to motion

PS 25 Solve integral problems by applying the FTOC VI and vici

PS 26 Find volumes of rotation

Functions and Logarithms Reporting Standard

PS 27 Determine the existence of an inverse and find the inverse of a function

PS 28 Solve contextual problems with functions

PS 29 Apply the properties of logarithms

PS 30 Apply rules of logarithmic and exponential functions to solve problems