2025 SUMMER CALCULUS FOR BEGINNERS

$\frac{dy}{dx}$

Learn Calculus in <u>4 Weeks</u> Before School Starts!

Date: July 7-31 OR August 4-28
Every Monday, Tuesday, and Thursday
Time: 3 - 4:30pm (90 Minutes)
Course Fee: $1,700 / 4 Lessons

Instructor: Burton Poon
University of Toronto Graduate: A- in Calculus
La Salle (Toronto): 98% in Calculus Exam

Unit A, 4/F, 228 Electric Road, North Point, Hong Kong

www.SageWorldNP.com

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This course is designed for high school students who are about to enter their first Calculus class. No formal background in Calculus is required to take the course but some understanding in Algebra and Trigonometry is beneficial.

Main Topics

$\lim_{\theta \to 0} \frac{\sin\theta}{\theta} = 1$

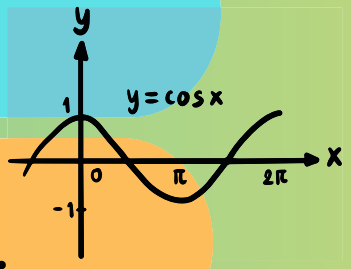
Evaluating Limits

$\lim_{h \to 0} \frac{f(x+h) - f(x)}{h}$

Finding Horizontal and Vertical Asymptotes

Definition of the Derivative, Finding Tangent and Normal Lines

$\frac{d}{dx}(x^n) = nx^{n-1}$

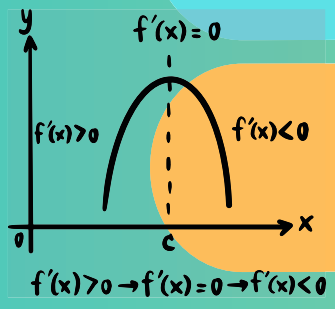


Rules for Differentiation and Differentiating Trigonometric Functions

$\frac{d}{dx}(f(g(x))) = f'(g(x))g'(x)$

The Chain Rule and Implicit Differentiation

Differentiating Inverse Trigonometric, Exponential, and Logarithmic Functions



Applications of Differentiation

Curve Sketching, Optimization, & Related Rates

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