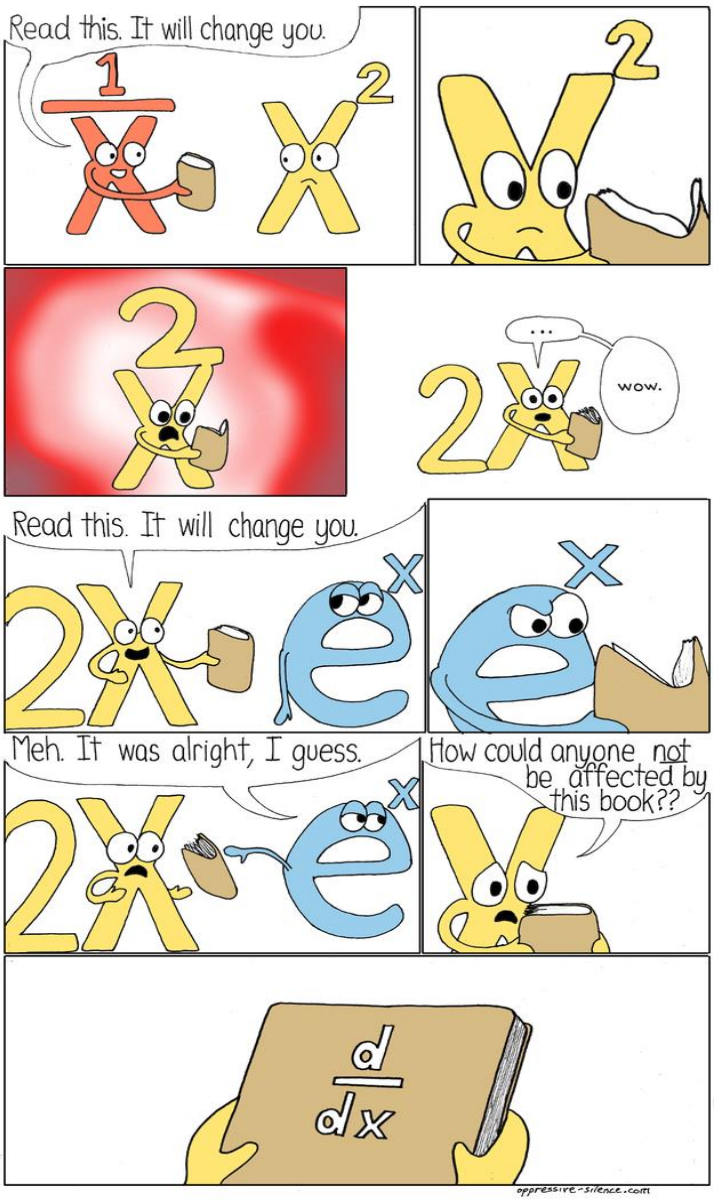
Unit 3 – Derivatives of Trig and Exponential Functions

Lesson Package

MCV4U



Unit 3 Outline

Unit Goal: Solve problems involving the derivatives of sinusoidal, exponential, and logarithmic functions.

Section	Subject	Learning Goals	Curriculum Expectations
L1	Derivatives of Trig Functions	- Determine the derivative of sine, cosine, and tangent	A2.4
L2	More Derivatives of Trig Functions	- Apply derivative rules to differentiate trig functions	A2.4, A3.5
L3	Applications of Derivatives of Trig Functions	- make connections between the concept of motion and derivatives	B2.4, B2.5
L4	Derivatives of Exponential Functions	- find the derivative of a quotient of functions using the quotient rule	A2.5, A2.8
L5	More Derivatives of Exponential Functions	- Find the derivative of a function using the chain rule	A2.5, A3.5
L6	Implicit Differentiation and Derivatives of Log Functions	- solve problems using mathematical models and derivatives	A3.5
L7	Connections with Exponential Models	- solve problems using mathematical models and derivatives	B2.4, B2.5

Assessments	F/A/O	Ministry Code	P/O/C	KTAC
Note Completion	A		P	
Practice Worksheet Completion	F/A		P	
Quiz – Derivatives of Trig and Exponential Functions	F		P	
PreTest Review	F/A		P	
Test – Derivatives of Exponential and Trig Functions	O	A2.4, A2.5, A3.5, B2.4, B2.5	P	K(25%), T(25%), A(25%), C(25%)