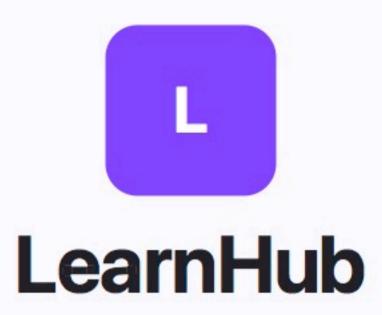


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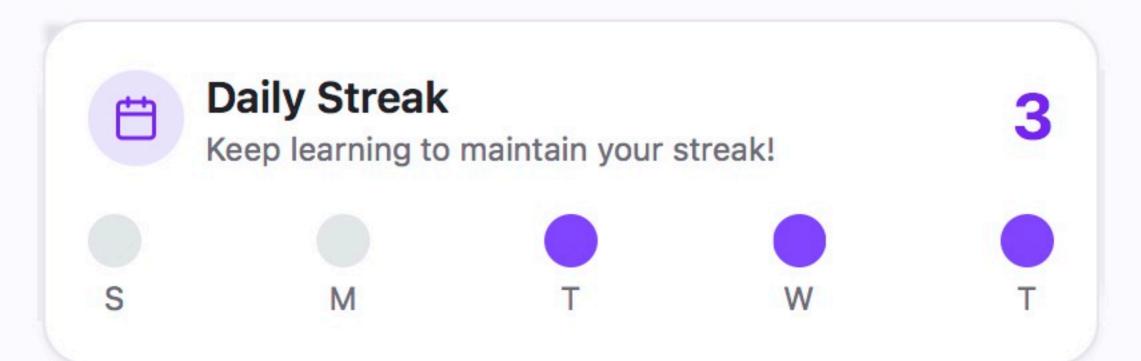
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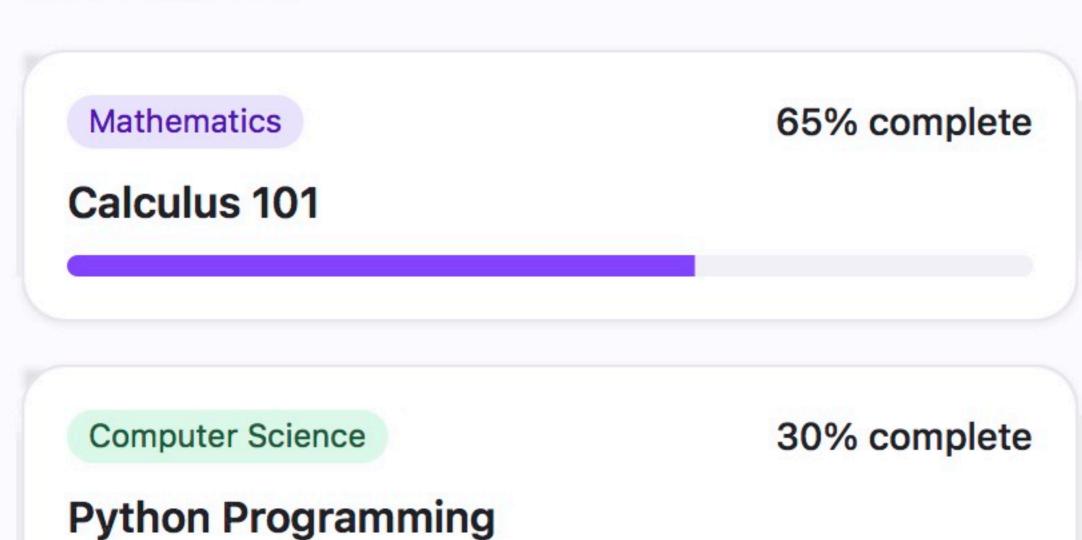


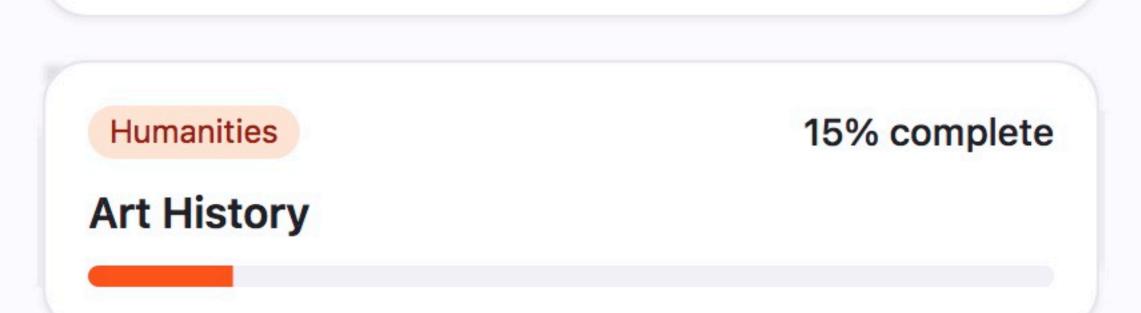
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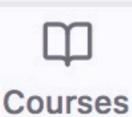




Continue Learning

	Introduction to Calculus Calculus 101	(<u>)</u> 15 min
	Python Data Structures Python Programming	① 12 min
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Profile



Jamie Doe

jamie.doe@example.com

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8

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8

12

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(3)

48

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8

15

Achievements

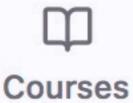
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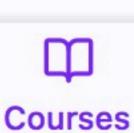
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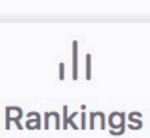


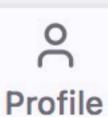
Mathematics

11 lessons

Linear Algebra







Course Details

Mathematics

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Calculus 101

A Prof. Jane Smith

Learn the fundamentals of calculus, from limits and derivatives to integrals and applications. This comprehensive course covers all the essential topics needed to build a strong foundation in calculus.

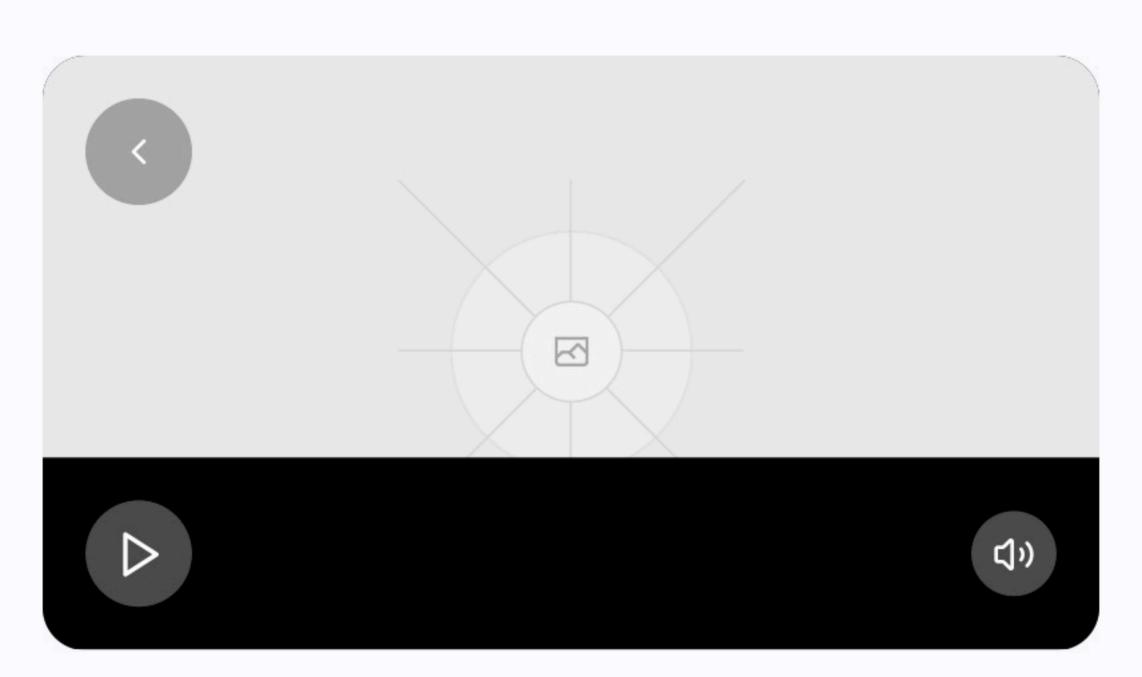
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	Resume Cou	rse 🕑	
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⊘	Introduction to Limit ① 15 min	ts	>
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3	Introduction to Calc © 25 min	ulus	>
4	Derivatives and Rule © 30 min	es	>
5	Applications of Deriv	vatives	>
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7	Techniques of Integ © 30 min	ration	>
8	Applications of Integ	gration	>
9	Improper Integrals © 20 min		>
10	Differential Equation © 25 min	1S	>
11	Sequences and Seri © 30 min	es	>
12	Final Review 3 40 min		>











Calculus 101	Lesson 3 of 12
	10 remaining

Introduction to Calculus

15 min read

This introductory lesson covers the basic concepts of calculus including limits, derivatives, and integrals.

Calculus is a branch of mathematics that focuses on studying rates of change and accumulation. It provides a framework for modeling systems where there is change, and for predicting future behavior based on current conditions.

There are two main branches of calculus:

differential calculus and integral calculus.

Differential calculus is concerned with rates of change and slopes of curves, while integral calculus focuses on accumulation of quantities and areas under or between curves.

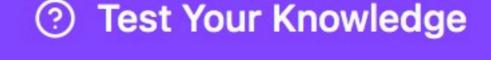
One of the fundamental concepts in calculus is the limit. A limit is the value that a function approaches as the input approaches some value. Limits are essential for defining derivatives and integrals.

The derivative of a function represents the rate at which the function is changing at a given point.

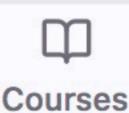
Geometrically, it can be interpreted as the slope of the tangent line to the function's graph at that point.

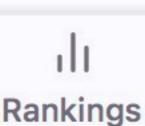
The interprete of a function represents the rate at

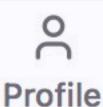
The integral of a function, on the other hand, represents the accumulation of quantities. It can be interpreted geometrically as the area under the curve of the function.











Knowledge Check



Lesson 3 of 12

2 completed

10 remaining

Back to Lesson

Question 1 of 5

What is the derivative of $f(x) = x^2$?

A
$$f'(x) = x$$

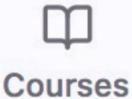
B
$$f'(x) = 2x$$

C
$$f'(x) = 2$$

$$D f'(x) = x^2$$

< Previous

Check Answer

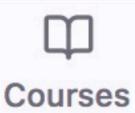


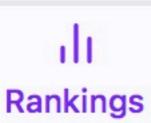
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4	M Morg	an Stanley		650
4		an Stanley e Rodriguez	You	610
	J Jami		You	
5	J Jamie	e Rodriguez	You	610











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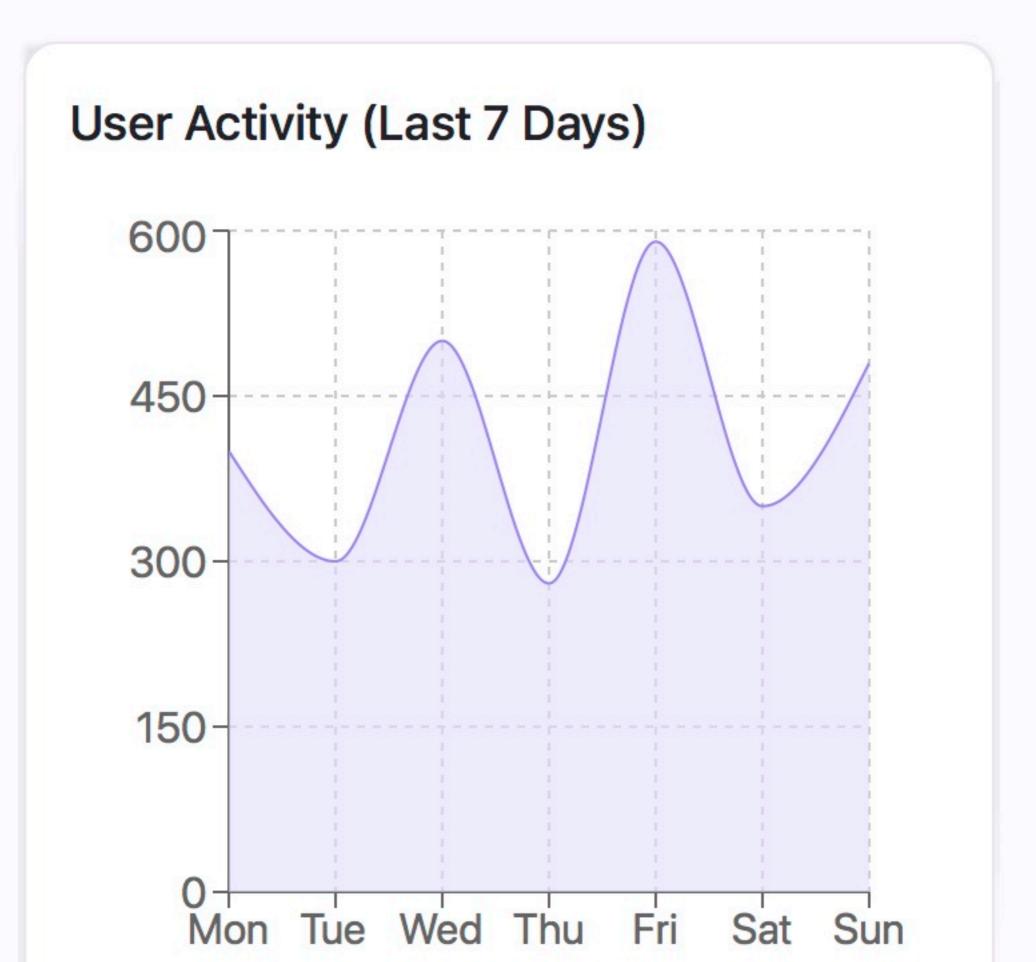
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