Calculus Videos

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Contents

Part I

The Chain Rule

The Chain Rule

Introduction

On the next pages, you will watch two videos about the chain rule and will then answer some questions about the video.

- The goals of these videos are to explain when you would need to use the chain rule and how to use the chain rule to find derivatives

- You use the chain rule when you have two composed functions - one function "inside" another, like $f(g(x))$

- To find the derivative, you do $f'(g(x)) * g'(x)$

- The reason for doing this is because the derivative of f doesnt just depend on x, but rather on the value of $g(x)$. So when $g(x)$ changes quickly, it affects how quickly $f(g(x))$ changes

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Learning outcomes:

The Chain Rule

Video: Introduction

YouTube link: <https://www.youtube.com/watch?v=GHlKQGhWSSA>

Learning outcomes:

The Chain Rule

Video: Procedure

YouTube link: <https://www.youtube.com/watch?v=jotTOiJLfn0>

Learning outcomes:

The Chain Rule

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSdV_TKpsDHqljRzJq-0Nm5gne6q4Xwh33UR
A

Learning outcomes:

The Chain Rule

Stop

This is the end of the chain rule section.

Learning outcomes:

Part II

Optimization

Optimization

Introduction

On the next page, you will watch two videos on optimization and will then answer some questions about the video.

Learning outcomes:

Optimization

Video

YouTube link: <https://www.youtube.com/watch?v=neUU8B2W984>

Learning outcomes:

Optimization

Video

YouTube link: https://www.youtube.com/watch?v=E2FvgfIr4kQ

Learning outcomes:

Optimization

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLScU8Oe2G35lrgDnP_agBarJGeAkyapBzijVGHMkONcr3TOKzQ

Learning outcomes:

Optimization

Stop

This is the end of the optimization section.

Learning outcomes:

Part III

Integrals from Riemann Sums

Integrals from Riemann Sums

Introduction

On the next page, you will watch two videos about constructing integrals from Riemann sums and will then answer some questions about the video.

Learning outcomes:

Integrals from Riemann Sums

Video

YouTube link: https://www.youtube.com/watch?v=-VPLnHJ8-Yo

Learning outcomes:

Integrals from Riemann Sums

Video

YouTube link: <https://www.youtube.com/watch?v=8OqgskFG-dA>

Learning outcomes:

Integrals from Riemann Sums

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSfWlPgiQPxQBMQ8afmf-E4Xl_95RKyWYpiM37Vid-Y_D2OHZQ

Learning outcomes:

Integrals from Riemann Sums

Stop

This is the end of the integrals from Riemann sums section.

Learning outcomes:

Part IV

Anti-derivatives

Antiderivatives

Introduction

On the next page, you will watch a video about antiderivatives and will then answer some questions about the video.

Video 7 outline to be written

Learning outcomes:

Antiderivatives

Video

Video 7 will appear here

Learning outcomes:

Antiderivatives

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSdZrONolV9WhFCOfDvGT-kkFPGbRdEGCp27
Qg

Learning outcomes:

Antiderivatives

Stop

This is the end of the antiderivatives section.

Learning outcomes: