Calculus Videos

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Contents

Part I

Rate of Change at a Point

RoC at a point

Introduction

On the next pages, you will watch videos and use interactives, and will then answer some questions about the video.

On the bottom of each screen you will see next and back buttons. Continue until the pages say stop, after the google form.

Learning outcomes:

RoC at a point

Video: Approximating Instantaneous Rates of Change

YouTube link: https://www.youtube.com/watch?v=_CkJ5w1D148

Learning outcomes:

RoC at a point

Interactive: Approximating Instantaneous Rates of Change

The embedded image on this page is currently broken and being fixed. In the meantime, please go to https://geogebra.org/m/afsEHCg4

Geogebra link: https://geogebra.org/m/afsEHCg43200

Learning outcomes:

RoC at a point

Video: Over- and Under-estimates

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

Learning outcomes:

RoC at a point

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSehKQZEFzEL5kE8ZucHW7DkKzNEcLU2ESTl

Learning outcomes:

RoC at a point

Stop

This is the end of the RoC at a point section.

Learning outcomes:

Part II

Curve Sketching

Curve Sketching

Introduction

On the next page, you will watch a video on graphing derivative functions and will then answer some questions about the video.

Learning outcomes:

Curve Sketching

Video

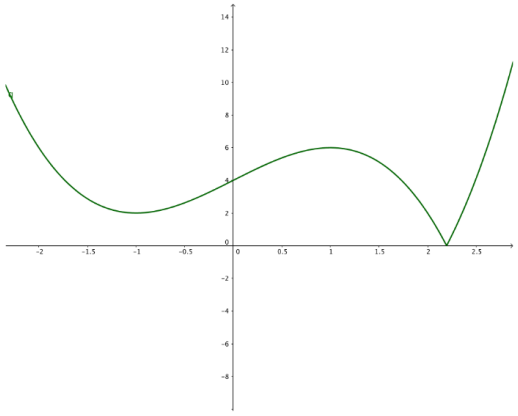
YouTube link: https://www.youtube.com/watch?v=XbiKMDjFc8w

Learning outcomes:

Curve Sketching

Question

Try it out! What will the derivative of this function look like?

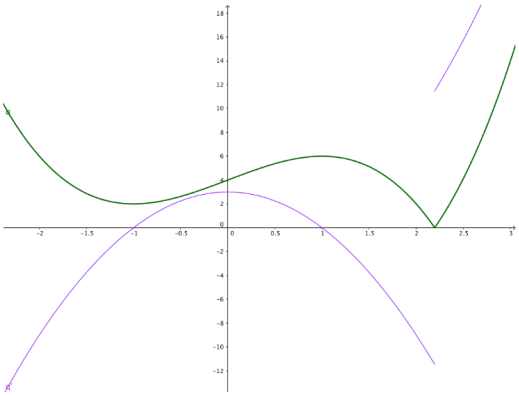


Learning outcomes:

Curve Sketching

Answer

Should be something similar to:



Learning outcomes:

Curve Sketching

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSeaeb47qTqqoW_Sy4dpXGfYIRVQLwtd17a93llNf0HGJ_-GBA

Learning outcomes:

Curve Sketching

Stop

This is the end of the curve sketching section.

Learning outcomes:

Part III
The Power Rule
The Power Rule

Introduction

On the next pages, you will watch videos on using the power rule and will then answer some questions about the video.

Learning outcomes:

The Power Rule

Video

YouTube link: https://www.youtube.com/watch?v=1ycGers95mo

Learning outcomes:

The Power Rule

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSfbBEr24GCMjO5D31sSLbRquiBtJiC0JE__1K5_M9yyNPTQkA

Learning outcomes:

The Power Rule

Stop

This is the end of the power rule section.

Learning outcomes:

Part IV
More Derivative Rules
More Derivative Rules

Introduction

On the next pages, you will watch a video about derivatives of exponential and logarithmic functions and will then answer some questions about the video.

Learning outcomes:

More Derivative Rules

Video

YouTube link: https://www.youtube.com/watch?v=i3kjirwbQ6o

Learning outcomes:

More Derivative Rules

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSfoS9damPZYshKkEZsY6oN0Y9SbruKvIBvt

Learning outcomes:

More Derivative Rules

Stop

This is the end of the more derivative rules section.

Learning outcomes:

Part V
The Chain Rule
The Chain Rule

Introduction

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

Learning outcomes:

The Chain Rule

Video

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

Learning outcomes:

The Chain Rule

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSfMvnGU2tgkX6FFJf9sumsCeMjuGKykN3RZ

Learning outcomes:

The Chain Rule

Stop

This is the end of the chain rule section.

Learning outcomes:

Part VI
Optimization
Optimization

Introduction

On the next pages, you will watch a video on optimization and will then answer some questions about the video.

Learning outcomes:

Optimization

Video

YouTube link: https://www.youtube.com/watch?v=TzyU7GGy3P4

Learning outcomes:

Optimization

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSc8y7G351b6xmGqmhMHNZRI114mXH37jS4U

Learning outcomes:

Optimization

Stop

This is the end of the optimization section.

Learning outcomes:

Part VII
Riemann Sums
Riemann Sums

Introduction

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

Learning outcomes:

Riemann Sums

Video

YouTube link: https://www.youtube.com/watch?v=dvLD6-VhzsE

Learning outcomes:

Riemann Sums

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSd9xcB0VRof-GbXmrrD70a7RLCaMZgxEH1v

Learning outcomes:

Riemann Sums

Stop

This is the end of the Riemann sums section.

Learning outcomes:

Part VIII
Indefinite Integrals
Indefinite Integrals

Introduction

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

Learning outcomes:

Riemann Sums

Video

YouTube link: https://www.youtube.com/watch?v=dvLD6-VhzsE

Learning outcomes:

Riemann Sums

Questions

Google Form link: https://docs.google.com/forms/d/e/1FAIpQLSd9xcB0VRof-GbXmrrD70a7RLCaMZgxEH1v

Learning outcomes:

Riemann Sums

Stop

This is the end of the Riemann sums section.

Learning outcomes: