

Calculus Chapter 4

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Definite Integrals



Video



Video

Section 4.2 in Stewart's Calculus.

Preclass Learning Objectives:

- **Definite integrals calculate the area under a function over an interval.**
- **Riemann Sums.**
- **Properties of definite integrals.**

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Fundamental Theorem of Calculus



Video

Video

Section 4.3 in Stewart's Calculus.

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Indefinite Integrals



Video

***Section 4.4 in
Stewart's
Calculus.***

Preclass Learning Objectives:

- **An indefinite integral of a function is its general antiderivative.**
- **The definite integral of a rate of change**

**is the net
change.**

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Integration with Substitution

***Section 4.5 in
Stewart's
Calculus.***



Video

Preclass Learning Objectives:

- **Substitution is the rule for integration which corresponds to the chain rule for differentiation.**
- **Introduction to integrating with substitution.**

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From:
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