Calculus review videos on Khan Academy

Calculus 1: https://www.khanacademy.org/math/calculus-1

Derivatives: definitions and basic rules

- Average vs. instantaneous rate of change
    - Derivative as a concept
    - Derivative as slope of curve
    - *Practice: derivative as slope of curve*
- Derivative definitions
    - Formal definition of the derivative as a limit
- Differentiability
    - Differentiability and continuity
- Power rule
    - Power rule
    - Power rule (with rewriting the expression)
    - *Practice: Power rule (positive integer powers)*
    - *Practice: Power rule (negative and fractional powers)*
    - *Practice: Power rule (with rewriting the expression)*
- Combining the power rule with other derivative rules
    - Basic derivative rules
    - Differentiating polynomials
    - Differentiating integer powers (mixed positive and negative)
    - *Practice: Differentiate polynomials*
    - *Practice: Differentiate integer powers (mixed positive and negative)*
- Product rule
    - Produce rule
    - Differentiating products
    - *Practice: Differentiate products*
- Quotient rule
    - Quotient rule
    - Differentiating rational functions
    - *Practice: Differentiate quotients*
    - *Practice: Differentiate rational functions*

Derivatives: chain rule and other advanced topics

- Chain rule
    - Chain rule
    - Common chain rule misunderstandings
    - *Practice: Chain rule intro*
- Second derivatives
    - Second derivatives
    - *Practice: Second derivatives*

Analyzing functions

- Relative (local) extrema
  - Introduction to minimum and maximum points
  - Finding relative extrema (first derivative test)
  - Worked example: finding relative extrema
  - *Practice: Relative minima and maxima*
- Absolute (global) extrema
  - Absolute minima and maxima on a closed interval
  - Absolute minima and maxima (entire domain)
  - *Practice: Absolute minima and maxima (closed interval)*
  - *Practice: Absolute minima and maxima (entire domain)*

Integrals

- Accumulations of change introduction
  - Introduction to integral calculus
  - Definite integrals intro
- Reverse power rule
  - Reverse power rule
  - Indefinite integrals: sums and multiples
  - *Practice: Reverse power rule*
  - *Practice: Reverse power rule: negative and fractional powers*
  - *Practice: Reverse power rule: sums and multiples*
- Indefinite integrals of common functions
  - Indefinite integral of 1/x
  - *Practice: Indefinite integrals: e^x and 1/x*
- Definite integrals of common functions
  - Definite integrals: reverse power rules
  - Definite integrals of rational function
  - *Practice: Definite integrals: reverse power rule*

Multivariable calculus: https://www.khanacademy.org/math/multivariable-calculus

Derivatives of multivariable functions

- Partial derivatives
  - Partial derivatives, introduction