

## Final Exam Math 1B

Do 29 out of 31 total questions

Some questions ask for exact answers, some require you only to set up the integral.

Bring Picture ID to final exam

- Techniques of Integration – Definite and Indefinite (9 questions)
  - Basic Forms
  - Absolute Value
  - Substitution
  - Parts
  - Partial Fractions
  - Geometry
  - Trigonometric Identities
  - Table of Integrals (what is needed will be provided)
- Fundamental Theorem of Calculus (1 question)
- Properties of Integrals (2 questions)
- Average Value of a function (1 question)
- Center of Mass (1 question)
- Improper Integrals (1 question)
- Consumer/Producer Surplus (1 question)
- Numeric Integration
  - Left and Right-sided Riemann Sum (1 question)
  - Trapezoid Rule (1 question)
  - Simpson's Rule (1 question)
- Finding Area (1 question)
- Probability and Mean (2 questions)
- Finding Arc Length (1 question)
- Finding Surface Area (1 question)
- Finding Volume – Shell Method (1 question)
- Finding Volume – Washer Method (1 question)
- Differential Equations
  - Slope Field (1 question)
  - Separable Equation – Initial Value Problem (1 question)
  - Verify Solution (1 question)
  - Euler's Method (1 question)
  - Logistic Model (1 question)