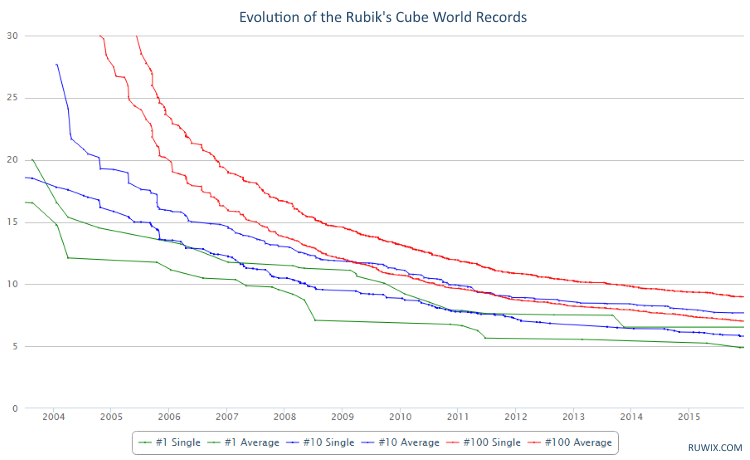
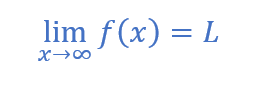
Title Page

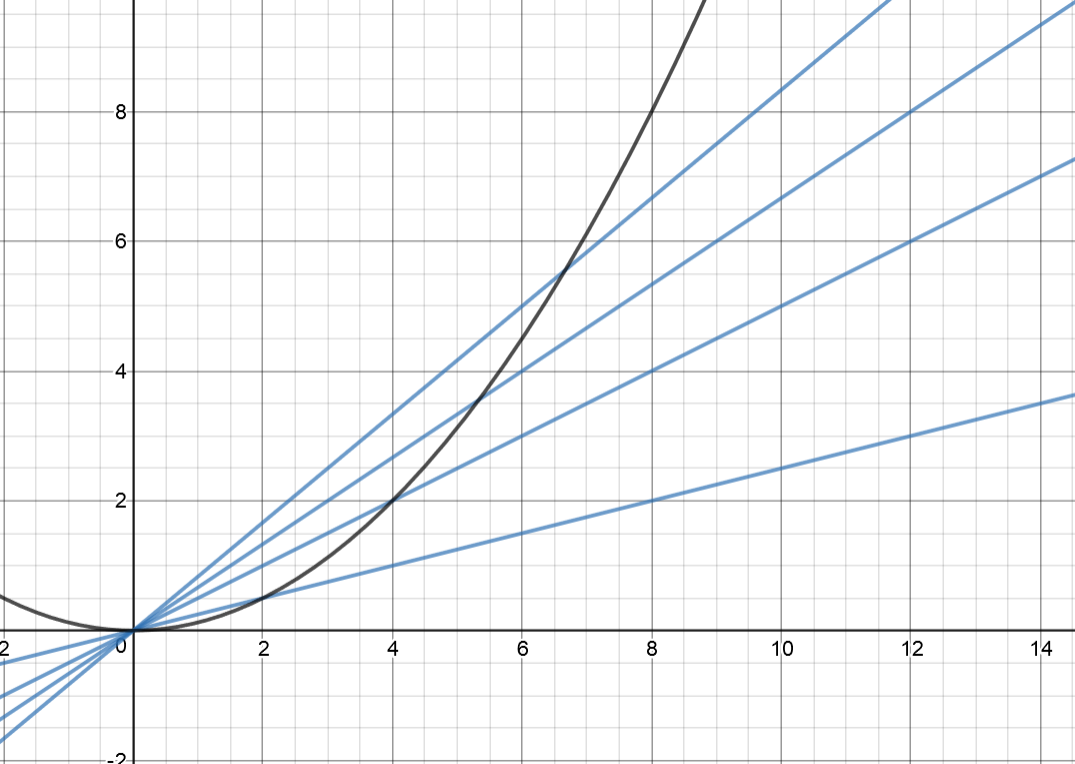
Title Page

Table of contents

**Limits**



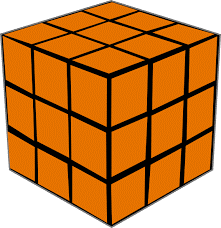


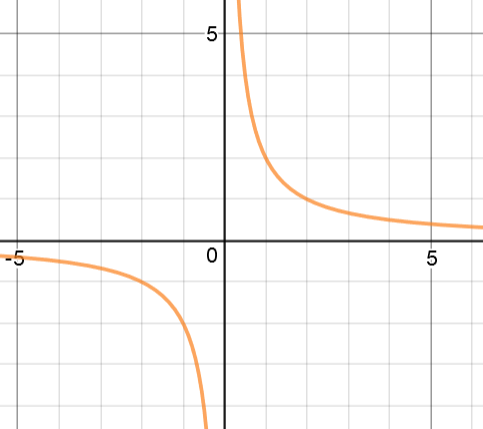
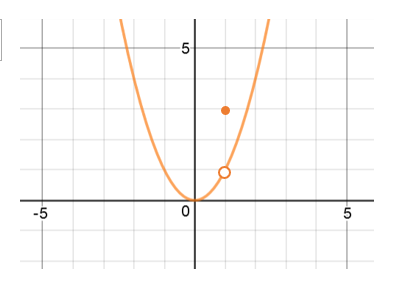


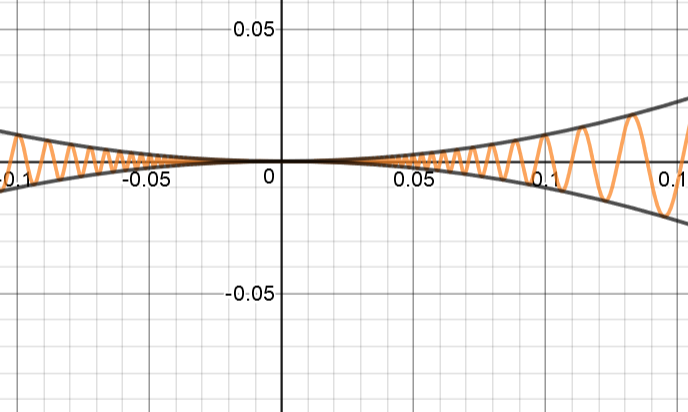
**Included Topics:**

* What is a limit?
* Methods of evaluation
* When do limits fail to exist?
* What is a one-sided limit?
* What is a general limit?
* Limits at infinity vs. infinite limits
* Tricky trig limit formulas

**Continuity**



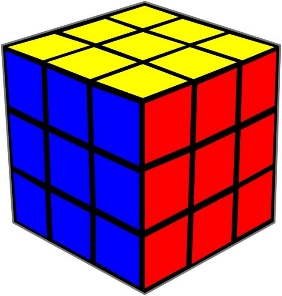
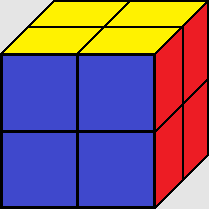


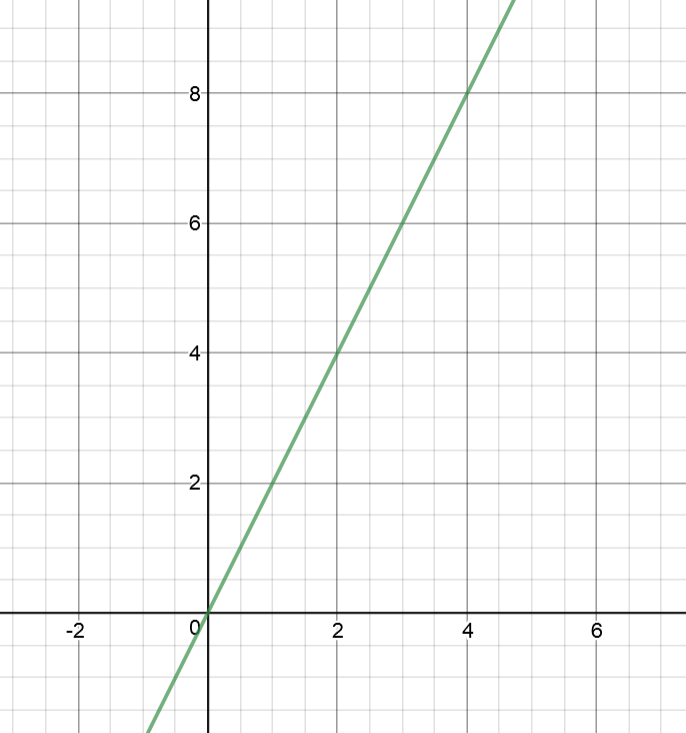


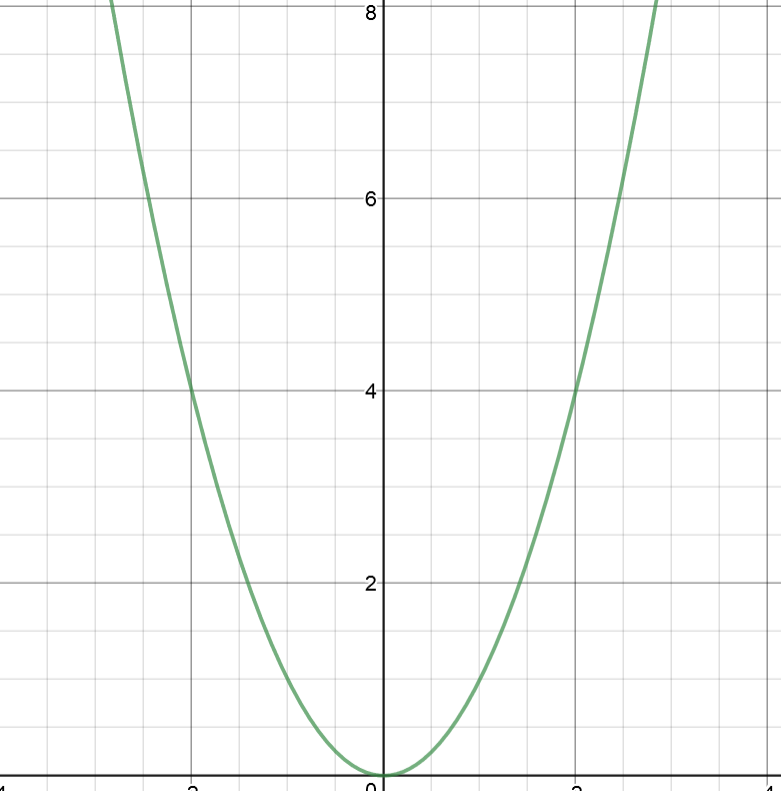
**Included Topics:**

* What is continuity?
* 3 types of continuity
* What is a discontinuity?
* The squeeze theorem
* Intermediate Value Theorem?

**The Derivative**



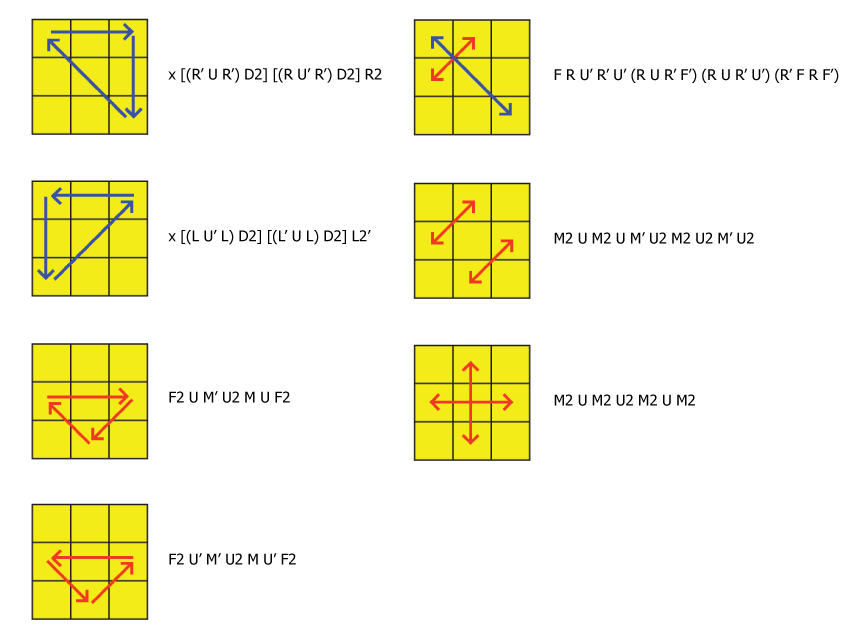


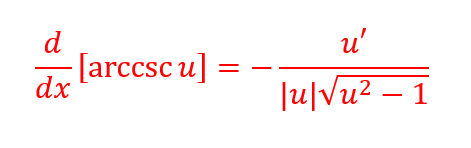


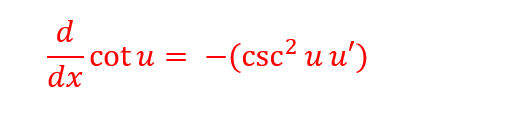
**Included Topics:**

* What’s the point?
* General limit definition
* When is a function not differentiable?

**Basic Differentiation Formulas**



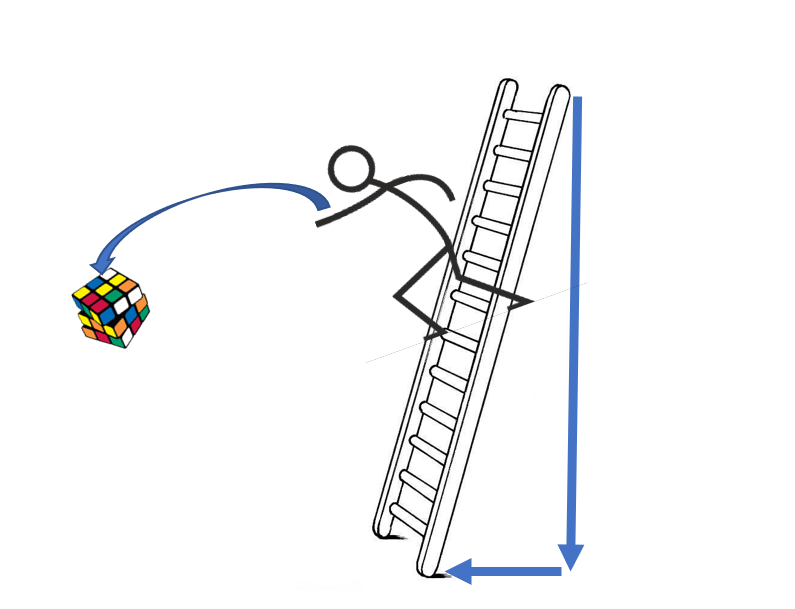


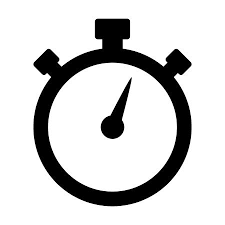


**Included Topics:**

* Steps for implicit differentiation

**Applications of the Derivative**

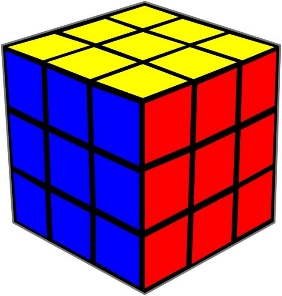
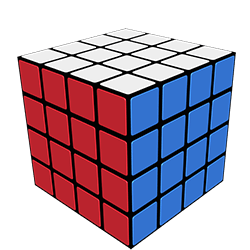


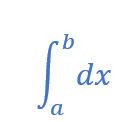


**Included Topics:**

* Extreme value theorem
* Mean value theorem
* Important terms
* The first derivative test
* The second derivative test
* Position, velocity, and acceleration
* Related rates problems
* Optimization problems

**The Integral**

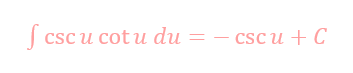
Original Derivative

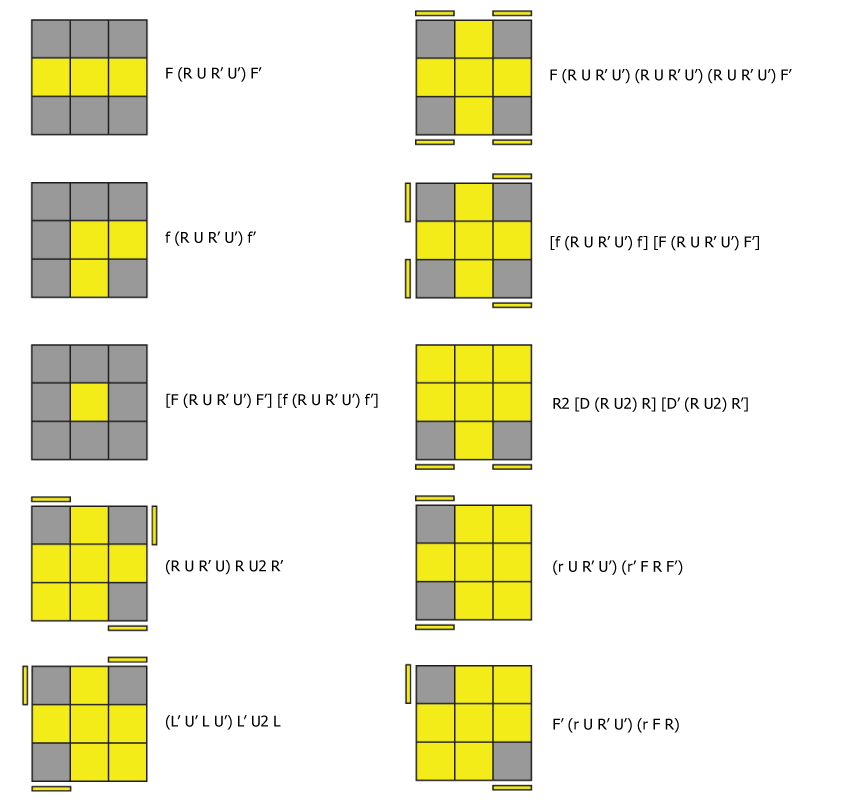


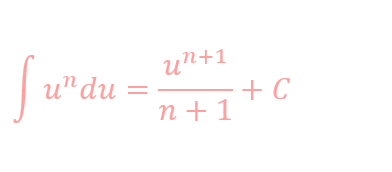
**Included Topics:**

* What’s the point?
* Indefinite vs definite integrals
* The fundamental theorem of calculus
* The second fundamental theorem of calculus
* Average Value

**Basic Integration Formulas**







**Included Topics:**

* U Substitution
* Numerical integration
  + LRAM, RRAM, MRAM
  + Trapezoid Rule