

# Integration Strategies

MATH 1700

# Readings

**Readings:** Section 7.5

# List of Strategies

- 1 Simplify first.
- 2 Look for an obvious substitution.
- 3 Classify the integrand (is it trigonometric, a rational function, does it have a radical, or will it require integration by parts?)
  - 1 Sometimes more than one method is required.
  - 2 Careful: sometimes it looks like you need a method but something simpler such as substitution will work.
- 4 Try again.
  - 1 Don't be afraid to try several things that don't work.
  - 2 Sometimes you need more than one technique.
  - 3 In real life, maybe you can't solve the problem at all.
- 5 Practice.
  - 1 There is no substitute for trying hard on many problems.
  - 2 Don't look at the solutions until you're done.