

## 1 Integration Strategy

This is a suggested strategy to use while attempting to evaluating an integral. This can be used for indefinite and definite integrals. After sufficient practice, you should be able to quickly identify the procedure necessary for a specific integral. To test your knowledge of integration methods, compare the integration methods needed for the integrals contained in Integration Triplets. **Note:** Each item in the list below links to the procedure for each strategy.

1. Use known formulas from your knowledge of derivatives
2. Use algebra to rewrite the integrand
3.  $u$  Substitution
4. Integration by parts:  $\int U dV = UV - \int V dU$
5. Trigonometric substitution
6. Use the method of partial fractions
7. Trigonometric Integrals
8. Use multiple methods
9. Use a Table of integrals

If at first you dont succeed, try again. Sometimes a combination of the above methods may be required. Most important of all, ***practice***.