

MTH 112
Spring 2021
Outline for Exam 2

Friday, March 19, 2021

I. Chapter 6: Applications of Integration

A. Section 6.5 : Work

- * Use integration to compute the amount of work required to accomplish physical tasks. Especially pumping fluids into and out of containers.

B. Section 6.6 : Moments and Center of Mass

- * Find the centers of mass for planar regions.

II. Chapter 8: Techniques of Integration

A. Section 8.1: Integration by Parts

- * Use Integration by Parts to evaluate definite and indefinite integrals. Know “*LIATE*” and how it helps you select u .

B. Section 8.2: Trigonometric Integrals

- * Evaluate integrals involving combinations of the basic trigonometric functions. Especially know how to integrate powers of sine, cosine, sinh, and cosh, and special cases of powers of tangent and secant.