MATH 122

INTEGRATING TRIG FUNCTIONS

GOALS

- ☐ INTEGRATE POWERS OF SINE AND COSINE
- ☐ KNOW WHEN AND HOW TO USE TRIG IDENTITIES

Ex: $\int \sin^2 x \cos^3 x \, dx$

Ex: $\int \sin^5 x \cos^4 x \, dx$

Ex: $\int \sin^3 x \cos^3 x \, dx$

Ex:

$$\int \sin^2 x \cos^2 x \, dx$$

SUMMARY: $\int \sin^m x \cos^n x \, dx$

- IF m IS ODD:
- IF n IS ODD:
- IF m & n ARE EVEN:

Ex:

$$\int \sin(\overset{A}{4x}) \sin(\overset{B}{3x}) dx$$

TANGENT È SECANT:

$$\int \tan x \, dx$$

$$\int \sec x \, dx$$