# 3.2. Trigonometric Integrals

Thursday, February 15, 2018 12:58 PM

## Forms:

I. Preliminary form: $\int \sin^k x \cos x \, dx$ or $\int \cos^k x \sin x \, dx$

II. $\int \sin^m x \cos^n x \, dx$

- Case 1: m: power of sine is odd
- Case 2: n: power of cosine is odd
- Case 3: m and n are even.

III. $\int \tan^m x \sec^n x \, dx$

- Case 1: n: power of secant is even
- Case 2: m: power of tangent is odd
- Other cases.

IV. $\int \sin(mx)\sin(nx)\,dx$; $\int \cos(mx)\cos(nx)\,dx$

$\int \sin(mx)\cos(nx)\,dx$

← product-to-sum trig identities