Table of Provided Formulas

The following would be provided, if needed:

$\sin(x+y) = \sin(x)\cos(y) + \cos(x)\sin(y)$ $\qquad$ $\cos(x+y) = \cos(x)\cos(y) - \sin(x)\sin(y)$

- $\int \tan(u)\,du = \ln|\sec(u)| + C$
- $\int \sec(u)\,du = \ln|\sec(u) + \tan(u)| + C$
- $\int \cot(u)\,du = \ln|\sin(u)| + C$
- $\int \csc(u)\,du = \ln|\csc(u) - \cot(u)| + C$

- $\int \sin^n(u)\,du = -\frac{1}{n}\sin^{n-1}(u)\cos(u) + \frac{n-1}{n}\int \sin^{n-2}(u)\,du$
- $\int \cos^n(u)\,du = \frac{1}{n}\cos^{n-1}(u)\sin(u) + \frac{n-1}{n}\int \cos^{n-2}(u)\,du$
- $\int \tan^n(u)\,du = \frac{1}{n-1}\tan^{n-1}(u) - \int \tan^{n-2}(u)\,du$
- $\int \sec^n(u)\,du = \frac{1}{n-1}\sec^{n-2}(u)\tan(u) + \frac{n-2}{n-1}\int \sec^{n-2}(u)\,du$

- $\int \sin(au)\sin(bu)\,du = \frac{\sin((a-b)u)}{2(a-b)} - \frac{\sin((a+b)u)}{2(a+b)}$
- $\int \sin(au)\cos(bu)\,du = -\frac{\cos((a-b)u)}{2(a-b)} - \frac{\cos((a+b)u)}{2(a+b)}$
- $\int \cos(au)\cos(bu)\,du = \frac{\sin((a-b)u)}{2(a-b)} + \frac{\sin((a+b)u)}{2(a+b)}$