

1 Trig Functions

1.

$$\begin{aligned}& \int \sin(ax + b)dx \\& u = ax + b \\& du = a dx \\& \frac{1}{a} du = dx \\& \int \frac{1}{a} \sin(u) du \\& \frac{1}{a} (-\cos(u)) + C \\& \int \sin(ax + b)dx = -\frac{\cos(ax + b)}{a} + C\end{aligned}$$

2.

$$\begin{aligned}& \int \tan(x)dx \\& \int \frac{\sin(x)}{\cos(x)} dx \\& u = \cos(x) \\& du = -\sin(x)dx \\& - \int \frac{1}{u} du \\& - \ln |u| + C \\& - \ln |\cos(x)| + C\end{aligned}$$

3.

$$\begin{aligned}& \int \csc(x)dx \\& \int \frac{1}{\sin(x)} dx\end{aligned}$$

4.

$$\int \sec(x)dx$$

5.

$$\int \cot(x) dx$$

6.

$$\int \arcsin(x) dx$$

7.

$$\int \arccos(x) dx$$

8.

$$\int \arctan(x) dx$$

9.

$$\int \operatorname{arccot}(x) dx$$

10.

$$\int \operatorname{arcsec}(x) dx$$

11.

$$\int \operatorname{arccsc}(x) dx$$