

MATHEMATICAL TABLES

$\int \frac{(\sin ax)}{(\cos^n ax)} dx = \frac{1}{(a(n-1)\cos^{(n-1)} ax)} + c$
$\int \frac{(\sin^2 ax)}{(\cos ax)} dx = \frac{-1}{a} (\sin ax) + \frac{1}{a} \ln \tan \left[\frac{\pi}{4} + \frac{ax}{2} \right] + c$
$\int \frac{(\sin^2 ax)}{(\cos^3 ax)} dx = \frac{1}{a} \left\{ \frac{(\sin ax)}{(2\cos^2 ax)} - \frac{1}{a} \ln \tan \left[\frac{\pi}{4} + \frac{ax}{2} \right] \right\}$
$\int \frac{(\sin^2 ax)}{(\cos^n ax)} dx = \frac{(\sin ax)}{(a(n-1)\cos^{(n-1)} ax)} - \frac{1}{(n-1)} \int \frac{dx}{(\cos^{(n-2)} ax)}$
$\int \frac{(\sin^3 ax)}{(\cos ax)} dx = \frac{-1}{a} \left[\frac{(\sin^2 ax)}{2} + \ln \cos ax \right] + c$
$\int \frac{(\sin^3 ax)}{(\cos^2 ax)} dx = \frac{1}{a} \left[\cos ax + \frac{1}{(\cos ax)} \right] + c$
$\int \frac{(\sin^3 ax)}{(\cos^n ax)} dx = \frac{1}{a} \left\{ \frac{1}{((n-1)\cos^{(n-1)} ax)} - \frac{1}{((n-3)\cos^{(n-3)} ax)} \right\} + c$
$\int \frac{(\sin^n ax)}{(\cos ax)} dx = \frac{-(\sin^{(n-1)} ax)}{(a(n-1))} + \int \frac{(\sin^{(n-2)} ax)}{(\cos ax)} dx$
$\int \frac{(\cos ax)}{(\sin^n ax)} dx = \frac{-1}{(a(n-1)\sin^{(n-1)} ax)} + c$
$\int \frac{(\cos^2 ax)}{(\sin ax)} dx = \frac{1}{a} (\cos ax + \ln \tan \left(\frac{ax}{2} \right)) + c$
$\int \frac{(\cos^2 ax)}{(\sin^3 ax)} dx = \frac{-1}{2a} \left[\frac{(\cos ax)}{(\sin^2 ax)} - \ln \tan \frac{ax}{2} \right] + c$
$\int \frac{(\cos^2 ax)}{(\sin^n ax)} dx = \frac{-1}{(n-1)} \left[\frac{(\cos ax)}{(a\sin^{-1} ax)} + \int \frac{dx}{(\sin^{(n-2)} ax)} \right]$
$\int \frac{(\cos^3 ax)}{(\sin ax)} dx = \frac{1}{a} \left[\frac{(\cos^2 ax)}{2} + \ln \sin ax \right] + c$
$\int \frac{(\cos^3 ax)}{(\sin^2 ax)} dx = \frac{-1}{a} \left[\sin ax + \frac{1}{(\sin ax)} \right] + c$
$\int \frac{(\cos^3 ax)}{(\sin^n ax)} dx = \frac{1}{a} \left[\frac{1}{((n-3)\sin^{(n-2)} ax)} - \frac{1}{((n-1)\sin^{(n-1)} ax)} \right] + c$
$\int \frac{(\cos^n ax)}{(\sin ax)} dx = \frac{(\cos^{(n-1)} ax)}{(a(n-1))} + \int \frac{(\cos^{(n-2)} ax)}{(\sin ax)} dx$