

$\sin^2 x + \cos^2 x = 1$	$\cos A \cos B = \frac{1}{2} [\cos(A + B) + \cos(A - B)]$		
$1 + \tan^2 x = \sec^2 x$	$\sin A \sin B = \frac{1}{2} [\cos(A - B) - \cos(A + B)]$		
$1 + \cot^2 x = \operatorname{cosec}^2 x$	$\sin A \cos B = \frac{1}{2} [\sin(A + B) + \sin(A - B)]$		
$\sin 2x = 2 \sin x \cos x \quad \tan 2x = \frac{2 \tan x}{1 - \tan^2 x}$	$\cos 2x = \cos^2 x - \sin^2 x = 1 - 2 \sin^2 x$ $= 2 \cos^2 x - 1$		
$\cos^2 x = \frac{1 + \cos 2x}{2}$ or $1 + \cos 2x = 2 \cos^2 x$	$\sin^2 x = \frac{1 - \cos 2x}{2}$ or $1 - \cos 2x = 2 \sin^2 x$		
$\cos 3x = 4 \cos^3 x - 3 \cos x$	$\sin 3x = 3 \sin x - 4 \sin^3 x$		
$\cos^3 x = \frac{3}{4} \cos x + \frac{1}{4} \cos 3x$	$\sin^3 x = \frac{3}{4} \sin x - \frac{1}{4} \sin 3x$		
$\sin^{-1} x + \cos^{-1} x = \frac{\pi}{2}$	$\tan^{-1} x + \cot^{-1} x = \frac{\pi}{2}$		
$\sin(A \pm B) = \sin A \cos B \pm \cos A \sin B$	$\operatorname{cosec}^{-1} x + \sec^{-1} x = \frac{\pi}{2}$		
$\cos(A \pm B) = \cos A \cos B \mp \sin A \sin B$	$\sin 0 = 0, \sin \pi = 0, \sin 2\pi = 0, \sin n\pi = 0.$		
$\tan(A \pm B) = \frac{\tan A \pm \tan B}{1 \mp \tan A \tan B}$	$\cos 0 = 1, \cos 2\pi = 1, \cos n\pi = (-1)^n$		
$\log 1 = 0, \log \infty = \infty, \log 0 = -\infty, \log e = 1$	$\cos \pi = -1, \cos 3\pi = -1, \cos 5\pi = -1$		
Any number (A) = $\log e^{(A)}$			
$\frac{d}{dx} \sin x = \cos x$	$\frac{d}{dx} \sinh x = \cosh x$		
$\frac{d}{dx} \cos x = -\sin x$	$\frac{d}{dx} \cosh x = \sinh x$		

$\frac{d}{dx} \tan x = \sec^2 x$	$\frac{d}{dx} \tanh x = \operatorname{sech}^2 x$		
$\frac{d}{dx} \cot x = \operatorname{cosec}^2 x$	$\frac{d}{dx} \coth x = -\operatorname{cosech}^2 x$		
$\frac{d}{dx} \sec x = \sec x \tan x$	$\frac{d}{dx} \operatorname{sech} x = -\operatorname{sech} x \tanh x$		
$\frac{d}{dx} \operatorname{cosec} x = -\operatorname{cosec} x \cot x$	$\frac{d}{dx} \operatorname{cosech} x = -\operatorname{cosech} x \coth x$		
$\frac{d}{dx} \log x = \frac{1}{x}$	$\frac{d}{dx} x^n = nx^{n-1}$		
$\frac{d}{dx} e^x = e^x$	$\frac{d}{dx} a^x = a^x \log a$		
$\frac{d}{dx} (uv) = u \frac{dv}{dx} + v \frac{du}{dx}$	$\frac{d}{dx} (uvw) = uv \frac{dw}{dx} + uw \frac{dv}{dx} + vw \frac{du}{dx}$		
$\frac{d}{dx} \left(\frac{u}{v} \right) = \frac{v \frac{du}{dx} - u \frac{dv}{dx}}{v^2}$	$\frac{d}{dx} [f(x)]^n = n[f(x)]^{n-1} f'(x)$		
$\frac{d}{dx} (\sin^{-1} x) = \frac{1}{\sqrt{1-x^2}}$	$(1+x)^n = 1 + nx + \frac{n(n-1)}{2!} x^2 + \frac{n(n-1)(n-2)}{3!} x^3 + \dots$		
$\frac{d}{dx} (\cos^{-1} x) = \frac{-1}{\sqrt{1-x^2}}$	$\frac{1}{(1+x)} = (1+x)^{-1} = 1 - x + x^2 - x^3 + \dots$		
$\frac{d}{dx} (\tan^{-1} x) = \frac{1}{1+x^2}$	$\frac{1}{(1-x)} = (1-x)^{-1} = 1 + x + x^2 + x^3 + \dots$		
$\frac{d}{dx} (\cot^{-1} x) = \frac{-1}{1+x^2}$	$\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \dots$		
$\frac{d}{dx} (\sec^{-1} x) = \frac{1}{x\sqrt{x^2-1}}$	$\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \dots$		

$\frac{d}{dx}(\operatorname{cosec}^{-1}x) = \frac{-1}{x\sqrt{x^2-1}}$	$e^x = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \dots$		
$\int \sin x \, dx = -\cos x + c$	$\int \sinh x \, dx = \cosh x + c$		
$\int \cos x \, dx = \sin x + c$	$\int \cosh x \, dx = \sinh x + c$		
$\int \tan x \, dx = \log(\sec x) + c$	$\int \tanh x \, dx = \log(\cosh x) + c$		
$\int \cot x \, dx = \log(\sin x) + c$	$\int \coth x \, dx = \log(\sinh x) + c$		
$\int \sec x \, dx = \log(\sec x + \tan x) + c$	$\int \operatorname{sech} x \, dx = 2\tan^{-1}(e^x) + c$		
$\int \operatorname{cosec} x \, dx = \log(\operatorname{cosec} x + \cot x) + c$	$\int \operatorname{cosech} x \, dx = \log[\tanh(x/2)] + c$		
$\int \sin^2 x \, dx = \frac{x}{2} - \frac{\sin 2x}{2} + c$	$\int \operatorname{cosec} x \cot x \, dx = -\operatorname{cosec} x + c$		
$\int \cos^2 x \, dx = \frac{x}{2} + \frac{\sin 2x}{2} + c$	$\int \sec x \tan x \, dx = \sec x + c$		
$\int \tan^2 x \, dx = \tan x - x + c$	$\int \log x \, dx = x \log x - x + c$		
$\int \cot^2 x \, dx = -\cot x - x + c$	$\int x \log x \, dx = \frac{x^2}{2} \log x - \frac{x^2}{4} + c$		
$\int \sec^2 x \, dx = \tan x + c$	$\int e^x \, dx = e^x + c$		
$\int \operatorname{cosec}^2 x \, dx = -\cot x + c$	$\int a^x \, dx = \frac{a^x}{\log a} + c$		

$\int (ax + b)^n dx = \frac{(ax + b)^{n+1}}{a(n + 1)}$	$\int x^n dx = \frac{x^{n+1}}{n + 1} + c$		
$\int \frac{1}{(ax + b)} dx = \frac{1}{a} \log ax + b $	$\int \sqrt{x} dx = \frac{2}{3} x\sqrt{x}$		
$\int [f(x)]^n dx = \frac{[f(x)]^{n+1}}{(n + 1)} \frac{1}{f'(x)} + c$	$\int \frac{1}{x} dx = \log x + c$		
$\int e^x [f(x) + f'(x)] dx = e^x f(x) + c$	$\int \frac{1}{x^2} dx = \frac{-1}{x} + c$		
$\int e^{f(x)} f'(x) dx = e^{f(x)}$	$\int \frac{1}{x^3} dx = \frac{-1}{2x^2} + c$		
$\int \frac{f'(x)}{f(x)} dx = \log f(x) + c$	$\int \frac{1}{x^4} dx = \frac{-1}{3x^3} + c$		
$\int \frac{f'(x)}{\sqrt{f(x)}} dx = 2\sqrt{f(x)} + c$	$\int \frac{1}{\sqrt{a^2 - x^2}} dx = \sin^{-1} \left(\frac{x}{a} \right) + c$		
$\int [f(x)]^n f'(x) dx = \frac{[f(x)]^{n+1}}{n + 1}$	$\int \frac{1}{a^2 + x^2} dx = \frac{1}{a} \tan^{-1} \left(\frac{x}{a} \right) + c$		
$\int \frac{1}{\sqrt{x^2 + a^2}} dx = \log \left(x + \sqrt{x^2 + a^2} \right)$	$\int \frac{1}{\sqrt{x^2 - a^2}} dx = \log \left(x + \sqrt{x^2 - a^2} \right)$		
$\int \frac{1}{x^2 - a^2} dx = \frac{1}{2a} \log \left \frac{x - a}{x + a} \right $ OR $\int \frac{1}{x^2 - a^2} dx = \frac{-1}{a} \coth^{-1} \left(\frac{x}{a} \right) + c$	$\int \frac{1}{a^2 - x^2} dx = \frac{1}{2a} \log \left \frac{a + x}{a - x} \right $ OR $\int \frac{1}{a^2 - x^2} dx = \frac{1}{a} \tanh^{-1} \left(\frac{x}{a} \right) + c$		
$\int \cos^2 x \sin x dx = \frac{-1}{3} \cos^3 x$	$\int \sin^2 x \cos x dx = \frac{1}{3} \sin^3 x$		
$\int \cos^n x \sin x dx = \frac{-1}{(n + 1)} \cos^{n+1} x$	$\int \sin^n x \cos x dx = \frac{1}{(n + 1)} \sin^{n+1} x$		

$\int \sin^2 x \cos^2 x dx = \frac{x}{8} - \frac{1}{32} \sin 4x$	$\cosh x = \frac{e^x + e^{-x}}{2} \sinh x = \frac{e^x - e^{-x}}{2}$		
$\int u v dx = u \int v dx - \int \left[\frac{du}{dx} \int v dx \right] dx$	$\int u v dx = uv_1 - u'v_2 + u''v_3 - u'''v_4 + \dots$		

Angle	$-\theta$	$\frac{\pi}{2} - \theta$	$\frac{\pi}{2} + \theta$	$\pi - \theta$	$\pi + \theta$	$2\pi - \theta$	$2n\pi + \theta$
sin	$-\sin\theta$	$\cos\theta$	$\cos\theta$	$\sin\theta$	$-\sin\theta$	$-\sin\theta$	$\sin\theta$
cos	$\cos\theta$	$\sin\theta$	$-\sin\theta$	$-\cos\theta$	$-\cos\theta$	$\cos\theta$	$\cos\theta$
tan	$-\tan\theta$	$\cot\theta$	$-\cot\theta$	$-\tan\theta$	$\tan\theta$	$-\tan\theta$	$\tan\theta$