

Formulas for Calculus

	Function	derivative	Anti-derivative
1)	$[h(x)]^n$	$n[h(x)]^{n-1} h'(x)$	
2)	$\sin x$	$\cos x$	$-\cos x$
3)	$\cos x$	$-\sin x$	$\sin x$
4)	$\tan x$	$\sec^2 x$	$\ln \sec x + c$
5)	$\sec x$	$\sec x \tan x$	$\ln \sec x + \tan x + c$
6)	$\cot x$	$-\csc^2 x$	$\ln \sin x + c$
7)	$\csc x$	$-\csc x \cot x$	$-\ln \csc x + \cot x + c$
	$\sum_1^n i = \frac{1}{2}n(n+1)$	$\sum_1^n i^2 = \frac{1}{6}n(n+1)(2n+1)$	$\sum_1^n i^3 = \frac{1}{4}n^2(n+1)^2$
	$\sin 2x = 2 \sin x \cos x$	$\cos 2x = 2\cos^2 x - 1$	$\cos 2x = 1 - 2\sin^2 x$