Name: ID Number:

$\frac{\partial\{x^n\}}{\partial x}$	$n \cdot x^{n-1}$
$\frac{\partial\{\mathfrak{e}^{kx}\}}{\partial x}$	$k\mathfrak{e}^{kx}$
$\frac{\partial\{\ln(kx)\}}{\partial x}$	$\frac{1}{x}$
$\frac{\partial\{\log_a(kx)\}}{\partial x}$	$\frac{1}{x\ln a}$
$\frac{\partial\{a^x\}}{\partial x}$	$a^x \ln a$
$\frac{\partial\{\sin kx\}}{\partial x}$	$k\cos kx$
$\frac{\partial\{\cos kx\}}{\partial x}$	$-k\sin kx$
$\frac{\partial\{\tan kx\}}{\partial x}$	$\frac{k}{\cos^2 kx}$
$n \neq -1; \int kx^n dx$	$\frac{1}{n+1} \cdot kx^{n+1} + c$
$\int \frac{k}{x} dx$	$k\ln\lvert x\rvert + c$
$\int \cos kx dx$	$\frac{1}{k}\sin kx + c$
$\int \sin kx dx$	$-\frac{1}{k}\cos kx + c$
$\int \tan kx dx$	$-\frac{1}{k}\ln\lvert\cos kx\rvert + c$
$\int \mathfrak{e}^{kx} dx$	$\frac{1}{k}\mathfrak{e}^{kx} + c$
$\int a^{kx} dx$	$\frac{a^{kx}}{k\ln a} + c(a > 0)$
$\int \frac{1}{\cos^2(kx)} dx$	$\frac{\tan kx}{k}$
$\int \frac{1}{\sin^2(kx)} dx$	$-\frac{1}{k\tan kx}$
$\int \ln kx dx$	$x\ln kx - x$
$\int \frac{dx}{\sqrt{x^2 - k^2}}$	$\cosh^{-1}\left(\frac{x}{k}\right)$
$\int \frac{dx}{\sqrt{x^2 + k^2}}$	$\sinh^{-1}\left(\frac{x}{k}\right)$
$\int \frac{dx}{\sqrt{k^2 - x^2}}$	$\sin^{-1}\left(\frac{x}{k}\right)$
$\int \frac{dx}{x^2 + k^2}$	$\frac{1}{k}\tan^{-1}\left(\frac{x}{k}\right)$