Derivatives and Antiderivatives			
Name	f(x)	f'(x)	F(x) (append + c)
Constant	k	0	kx
Identity	x	1	$(\frac{1}{2})x^2$
Linear	mx+b	m	$(\frac{1}{2})mx^2 + bx$
Power	x^n	nx^{n-1}	$x^{n+1}/(n+1)$
Root	Nth root(x) = $x^{1/n}$	(see above)	(see above)
Reciprocal	1/x = x^{-1}	-1/x^2	ln |x|
Trig	sin x	cos x	-cos x
	cos x	-sin x	sin x
	tan x	$\sec^2$ x	ln |sec x|
	sec x	sec x tan x	ln |tan x + sec x|
	csc x	-csc x cot x	ln |cot x – csc x|
	cot x	$-\csc^2$ x	ln |sin x|
Const mult	k g(x)	k g'(x)	k G(x)
Sum/Diff	g(x) +- h(x)	g'(x) +- h'(x)	G(x) +- H(x)
Product	g(x)h(x)	g'h + gh'	
Quotient	g(x)/h(x)	(hg' – gh') / h^2	
Chain	g(h(x))	g'(h(x)) * h'(x)	
Exp/Log	e^x	e^x	e^x
	$e^{g(x)}$	$e^{g(x)}$ * g'(x)	
	b^x	b^x ln b	$b^x/(\ln b)$
	ln(x)	1/x	x ln x - x
	ln(g(x))	g'(x) / g(x)	
	$\log_b(x)$	1/(x ln b)	1/(ln b) (x ln x – x)
	Memorize all except shaded entries		