Formulas for Business calculus

	Function	Derivative
1	$f(x).g(x)$	$f'(x).g(x)+f(x).g'(x)$
2	$\frac{f(x)}{g(x)}$	$\frac{f'(x).g(x)-f(x)g'(x)}{(g(x))^2}$
3	$[f(x)]^n$	$n[f(x)]^{n-1}\,f'(x)$
4	$\ln[f(x)]$	$\frac{f'(x)}{f(x)}$
5	$\log_b[f(x)]$	$\frac{1}{\ln b}\,\frac{f'(x)}{f(x)}$
6	$e^{f(x)}$	$f'(x)e^{f(x)}$
7	$b^{f(x)}$	$lnb\ \ f'(x)\ b^{f(x)}$
	Function	Integral
1	x^n	$\frac{1}{n+1}x^{n+1}$ +c for $n \neq -1$
2	$\frac{1}{x}=x^{-1}$	$\ln x$+c
3	e^{ax+b}	$\frac{1}{a}e^{ax+b}$+c
4	$\frac{f'(x)}{f(x)}$	$ln\|f(x)\|$+c
5	k	Kx + c
6	x	$\frac{1}{2}x^2+c$
	Compound interest formula $A=P(1+\frac{r}{n})^{nt}$	
	Continuous compounding $A=Pe^{rt}$	