Derivatives

$\frac{d}{dx}(c) = 0$ (where c is some constant)

$\frac{d}{dx}(x^n) = nx^{n-1}$

$\frac{d}{dx}(sin(x)) = cos(x)$

$\frac{d}{dx}(cos(x)) = -sin(x)$

$\frac{d}{dx}(tan(x)) = sec^2(x)$

$\frac{d}{dx}(csc(x)) = -csc(x) * cot(x)$

$\frac{d}{dx}(sec(x)) = sec(x) * tan(x)$

$\frac{d}{dx}(cot(x)) = -csc^2(x)$

$\frac{d}{dx}(e^x) = e^x$

$\frac{d}{dx}(e^u) = e^u * \frac{du}{dx}$ (where u is an arbitrary function)

$$\frac{d}{dx}(ln(x)) = \frac{1}{x}$$

$$(cf(x))' = c(f'(x))(\text{where c is a constant})$$

$$(f(x) - g(x))' = f'(x) - g'(x)$$

$(f+g)' = f' + g'$

$(fg)' = f'g + g'f$

$(\frac{f}{g})' = \frac{f'g - g'f}{g^2}$

$\frac{d}{dx}(a^x) = a^x * ln(a)$ (where a is some constant)

$$\frac{d}{dx}(f(g(x))) = f'(g(x))g'(x)$$

(Mostly compiled by Alex Simpkins)