$$c' = 0 \tag{1}$$

$$x' = 1 \tag{2}$$

$$(f(g(x)))' = f'(g(x))g'(x) \tag{3}$$

$$(f(x) + g(x))' = f'(x) + g'(x) \tag{4}$$

$$(f(x) - g(x))' = f'(x) - g'(x) \tag{5}$$

$$(f(x)g(x))' = f'(x)g(x) + f(x)g'(x) \tag{6}$$

$$\left(\frac{f(x)}{g(x)}\right)' = \frac{f'(x)g(x) - f(x)g'(x)}{g(x)^2} \tag{7}$$

$$\left(f(x)^c\right)' = cf(x)^{c-1}f'(x) \tag{8}$$

$$\left(c^{g(x)}\right)' = c^{g(x)}\ln(c)g'(x) \tag{9}$$

$$\left(f(x)^{g(x)}\right)' = f(x)^{g(x)}\left(\frac{f'(x)g(x)}{f(x)} + g'(x)\ln(f(x))\right) \tag{10}$$

$$\operatorname{sgn}'(x) = 0 \tag{11}$$

$$(|x|)' = \operatorname{sgn}(x) \tag{12}$$

$$(\sqrt{x})' = \frac{1}{2\sqrt{x}} \tag{13}$$

$$\exp'(x) = \exp(x) \tag{14}$$

$$\ln'(x) = \frac{1}{x} \tag{15}$$

$$\sin'(x) = \cos(x) \tag{16}$$

$$\cos'(x) = -\sin(x) \tag{17}$$

$$\tan'(x) = \sec(x)^2 \tag{18}$$

$$\cot'(x) = -\csc(x)^2 \tag{19}$$

$$\sec'(x) = \sec(x)\tan(x) \tag{20}$$

$$\csc'(x) = -\csc(x)\cot(x) \tag{21}$$

$$\operatorname{asin}'(x) = \frac{1}{\sqrt{1-x^2}} \tag{22}$$

$$\operatorname{acos}'(x) = -\frac{1}{\sqrt{1-x^2}} \tag{23}$$

$$\operatorname{atan}'(x) = \frac{1}{x^2+1} \tag{24}$$

$$\operatorname{acot}'(x) = -\frac{1}{x^2+1} \tag{25}$$

$$\operatorname{asec}'(x) = \frac{1}{|x|\sqrt{x^2-1}} \tag{26}$$

$$\operatorname{acsc}'(x) = -\frac{1}{|x|\sqrt{x^2-1}} \tag{27}$$

$$\sinh'(x) = \cosh(x) \tag{28}$$

$$\cosh'(x) = \sinh(x) \tag{29}$$

$$\tanh'(x) = \operatorname{sech}(x)^2 \tag{30}$$

$$\coth'(x) = -\operatorname{csch}(x)^2 \tag{31}$$

$$\operatorname{sech}'(x) = -\operatorname{sech}(x)\tanh(x) \tag{32}$$

$$\operatorname{csch}'(x) = -\operatorname{csch}(x)\coth(x) \tag{33}$$

$$\operatorname{asinh}'(x) = \frac{1}{\sqrt{x^2+1}} \tag{34}$$

$$\operatorname{acosh}'(x) = \frac{1}{\sqrt{x^2-1}} \tag{35}$$

$$\operatorname{atanh}'(x) = \frac{1}{1-x^2} \tag{36}$$

$$\operatorname{acoth}'(x) = \frac{1}{1-x^2} \tag{37}$$

$$\operatorname{asech}'(x) = -\frac{1}{|x|\sqrt{1-x^2}} \tag{38}$$

$$\operatorname{acsch}'(x) = -\frac{1}{|x|\sqrt{x^2+1}} \tag{39}$$