

$$1) \ y = c \rightarrow y' = 0$$

$$2) \ y = x \rightarrow y' = 1$$

$$3) \ y = x^p \rightarrow y' = px^{p-1}$$

$$4) \ y = e^x \rightarrow y' = e^x$$

$$5) \ y = a^x \rightarrow y' = a^x \ln(a)$$

$$6) \ y = \ln x \rightarrow y' = \frac{1}{x}$$

$$7) \ y = \log_a x \rightarrow y' = \frac{1}{x} \log_a e$$

$$8) \ y = \sin(x) \rightarrow y' = \cos(x)$$

$$9) \ y = \cos(x) \rightarrow y' = -\sin(x)$$

$$10) \ y = \tan(x) \rightarrow y' = \sec^2(x)$$

$$11) \ y = \cot(x) \rightarrow y' = -\operatorname{cosec}^2(x)$$

$$12) \ y = \sec(x) \rightarrow y' = \sec(x) \cdot \tan(x)$$

$$13) \ y = \operatorname{cosec}(x) \rightarrow y' = -\operatorname{cosec}(x) \cdot \cot(x)$$

$$14) \ y = f \cdot g \rightarrow y' = f' \cdot g + f \cdot g'$$

$$15) \ y = \frac{f}{g} \rightarrow y' = \frac{f'g - fg'}{g^2}$$