0.1 Differentiating e^x

0.1.1 Intro

We have $e^x = \sum_{i=0}^{\infty} \frac{x^i}{i!}$

$\frac{\delta}{\delta x} e^x = \frac{\delta}{\delta x} \sum_{i=0}^{\infty} \frac{x^i}{i!}$

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$\frac{\delta}{\delta x} e^x = \sum_{i=1}^{\infty} \frac{x^{i-1}}{(i-1)!}$

$\frac{\delta}{\delta x} e^x = \sum_{i=0}^{\infty} \frac{x^i}{i!}$

$\frac{\delta}{\delta x} e^x = e^x$