

In class today, I forgot to write down the following important fact that you will need to work on the suggested homework problems:

Fact: $\frac{d}{dx}[e^{g(x)}] = e^{g(x)} \frac{d}{dx}[g(x)]$ for any function $g(x)$.

Fact: $\frac{d}{dx}[y] = e^u \frac{d}{dx}[u]$ if $y = e^u$ and u is a function of x .

These follow from the fact that $\frac{d}{dx}[e^x] = e^x$ and the chain rule.

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