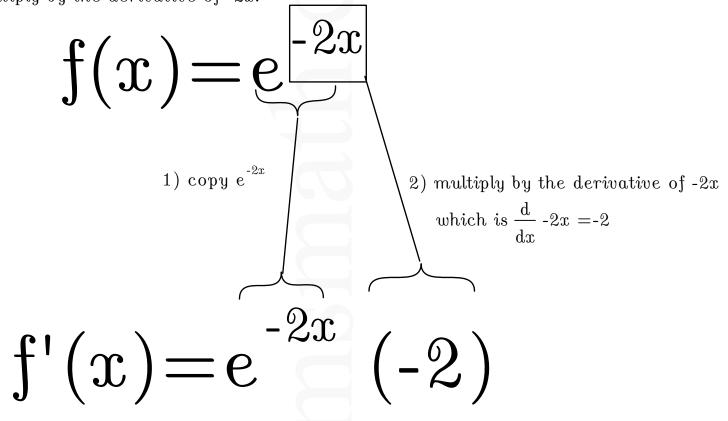Find the derivative of $f(x)=e^{-2x}$

1) You have to use the chain rule. Copy e^{-2x} exactly, and then multiply by the derivative of -2x.

$$f(x)=e^{\boxed{-2x}}$$

1) copy e^{-2x}

2) multiply by the derivative of -2x which is $\dfrac{d}{dx}$ -2x =-2

$$f'(x)=e^{-2x} \; (-2)$$

3) Rewrite by placing -2 in front

$$f'(x)=-2e^{-2x}$$

If you practice every day, you'll learn all you need to learn. This is 100% guaranteed.