

Dr Oliver Mathematics
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Differentiation: Part 2

1. Find

$$\frac{d}{dx} (\ln e^{2x}).$$

Solution

$$\begin{aligned} \frac{d}{dx} (\ln e^{2x}) &= \frac{d}{dx} (2x \ln e) \\ &= \frac{d}{dx} (2x \cdot 1) \\ &= \frac{d}{dx} (2x) \\ &= \underline{\underline{2}}. \end{aligned}$$