

$$\begin{aligned}\frac{d}{dx}(2 \cos x \sin y) &= \frac{d}{dx}(1) \\ \Rightarrow 2[\cos x \cdot \cos y \cdot y' + \sin y \cdot (-\sin x)] &= 0 \\ \Rightarrow y'(2 \cos x \cos y) &= 2 \sin x \sin y \\ \Rightarrow y' = \frac{2 \sin x \sin y}{2 \cos x \cos y} &= \tan x \tan y\end{aligned}$$