Calculus I
Derivative of a trigonometric function times a monomial

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Example (Product Rule, with Cosine)

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$$\begin{aligned} f'(x) &= \frac{\mathrm{d}}{\mathrm{d}x}(x)(\cos x) + (x)\frac{\mathrm{d}}{\mathrm{d}x}(\cos x) \\ &= (1)(\cos x) + (x)(-\sin x) \\ &= -x \sin x + \cos x. \end{aligned}$$