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$$(f(x) \cdot g(x))' = f'(x) \cdot g'(x)$$

$$f'(x) \cdot g(x) + f(x) \cdot g'(x) = f'(x) g'(x)$$

$$f(x) = x^n, \quad g(x) = x^m \quad \text{z.B.}$$

$$\cancel{n} x^{n-1} \cdot x^m + x^n \cdot \cancel{m} x^{m-1} = \cancel{n} x^{n-1} \cdot \cancel{m} x^{m-1}$$

$$n x^{n+m-1} + m x^{n+m-1} = nm x^{n+m-2} \quad / : x^{n+m-1}$$

$$n + m = \frac{nm}{x} \quad / : nm$$

$$\frac{1}{m} + \frac{1}{n} = \frac{1}{x}$$