Rules for Differentiation

Derivative of x^n	$\frac{dy}{dx} = anx^{n-1}$
Derivative of a constant	$\frac{dy}{dx} = 0$
The chain rule	$\frac{dy}{dx} = \frac{dy}{du} \times \frac{du}{dx}$
The product rule	$\frac{dy}{dx} = u\frac{dv}{dx} + v\frac{du}{dx}$
The quotient rule	$\frac{dy}{dx} = \frac{v\frac{du}{dx} - u\frac{dv}{dx}}{v^2}$

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Fold

Cut

$$y = ax^n$$

$$y = a$$

$$y = g\left[h(x)\right] = g(u)$$

where $u = h(x)$

$$y = g(x)h(x) = uv$$

where $u = g(x)$, $v = h(x)$

$$y = \frac{g(x)}{h(x)} = \frac{u}{v}$$

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