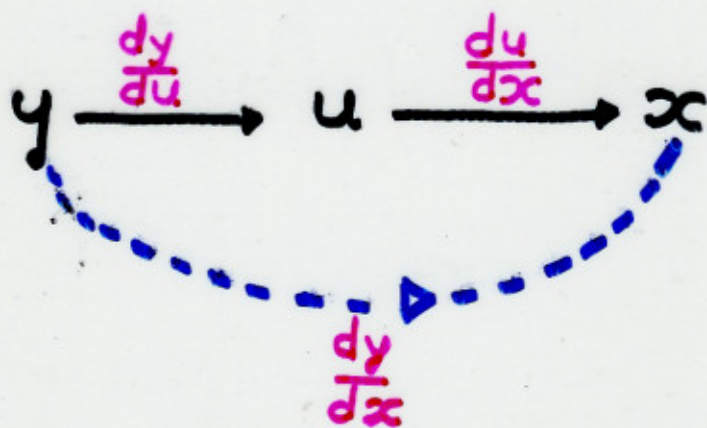


Chain Rule:

Suppose y is a differentiable function of u , and u is a differentiable function of x . Then y is a differentiable function of x and we have the following:

$$\frac{dy}{dx} = \frac{dy}{du} \cdot \frac{du}{dx}$$

Illustration:



General Power Rule (Special case of Chain Rule)

$$\frac{d}{dx} [f(x)]^n = n [f(x)]^{n-1} \cdot f'(x)$$