

Quotient rule

If $y = \frac{u}{v}$ is a quotient of two functions, then the *quotient rule* states that

$$\frac{dy}{dx} = \frac{v \frac{du}{dx} - u \frac{dv}{dx}}{v^2}.$$

This can be deduced by applying the product and chain rules to $y = uv^{-1}$.