Quotient Rule

If f and g are differentiable at x and $g(x) \neq 0$, then $\frac{f}{g}$ is differentiable at x and

$$\frac{d}{dx}\left[\frac{f(x)}{g(x)}\right] = \frac{g(x)\frac{d}{dx}[f(x)] - f(x)\frac{d}{dx}[g(x)]}{[g(x)]^2}.$$