Derivative Rules

Constant Rule	If $f(x) = c$, then $f'(x) = 0$
Power Rule	If $f(x) = x^n$, then $f'(x) = nx^{n-1}$
Constant Multiple Rule	$\frac{d}{dx}\left(k \cdot f(x)\right) = k \cdot f'(x)$
Sum Rule	$\frac{d}{dx}\left(f(x) + g(x)\right) = f'(x) + g'(x)$
Difference Rule	$\frac{d}{dx}\left(f(x) - g(x)\right) = f'(x) - g'(x)$
Product Rule	$\frac{d}{dx}\left(f(x) \cdot g(x)\right) = f(x) \cdot g'(x) + f'(x) \cdot g(x)$
Quotient Rule	$\frac{d}{dx}\frac{f(x)}{g(x)} = \frac{f'(x) \cdot g(x) - f(x) \cdot g'(x)}{\left(g(x)\right)^2}$