

Συνάρτηση	Παράγωγος	Σύνθετη Συνάρτηση	Παράγωγος
1 $f(x)=c$			
2 $f(x) = x$	$f'(x) = x' = 1$		
3 $f(x) = x^a$	$f'(x) = ax^{a-1}$	$f(x) = g^v(x)$	$f'(x) = v \cdot g^{v-1}(x) \cdot g'(x)$
4 $f(x) = \frac{1}{x}$	$f'(x) = -\frac{1}{x^2}$	$f(x) = \frac{1}{g(x)}$	$f'(x) = -\frac{g'(x)}{g^2(x)}$
5 $f(x) = \sqrt{x}$	$f'(x) = \frac{1}{2\sqrt{x}}$	$f(x) = \sqrt{g(x)}$	$f'(x) = \frac{g'(x)}{2\sqrt{g(x)}}$
6 $f(x) = \eta\mu x$	$f'(x) = \sigma\upsilon\nu x$	$f(x) = \eta\mu g(x)$	$f'(x) = \sigma\upsilon\nu g(x) \cdot g'(x)$
7 $f(x)=\sigma\upsilon\nu x$	$f'(x) = -\eta\mu x$	$f(x) = \sigma\upsilon\nu g(x)$	$f'(x) = -\eta\mu g(x) \cdot g'(x)$
8 $f(x) = \varepsilon\phi x$	$f'(x) = \frac{1}{\sigma\upsilon\nu^2 x}$	$f(x) = \varepsilon\phi g(x)$	$f'(x) = \frac{g'(x)}{\sigma\upsilon\nu^2 g(x)}$
9 $f(x)=\sigma\phi x$	$f'(x) = -\frac{1}{\eta\mu^2 x}$	$f(x) = \sigma\phi g(x)$	$f'(x) = -\frac{g'(x)}{\eta\mu^2 g(x)}$
10 $f(x) = e^x$	$f'(x) = e^x$	$f(x) = e^{g(x)}$	$f'(x) = e^{g(x)} \cdot g'(x)$
11 $f(x) = a^x$	$f'(x) = a^x \ln a$		
12 $f(x) = \ln x $	$f'(x) = \frac{1}{x}$	$f(x) = \ln g(x)$	$f'(x) = \frac{g'(x)}{g(x)}$

Κανόνες παραγώγισης

Άθροισμα

$$[f(x) + g(x)]' = f'(x) + g'(x) \text{ και } [f(x) - g(x)]' = f'(x) - g'(x)$$

Γινόμενα



$$[c \cdot f(x)]' = c \cdot f'(x)$$

$$[f(x) \cdot g(x)]' = f'(x) \cdot g(x) + f(x) \cdot g'(x)$$

$$[f(x) \cdot g(x) \cdot h(x)]' = f'(x)g(x)h(x) + f(x)g'(x)h(x) + f(x)g(x)h'(x)$$

Πηλίκο

$$\left[\frac{f(x)}{g(x)}\right]' = \frac{f'(x) \cdot g(x) - f(x) \cdot g'(x)}{g^2(x)} \text{ και } \left[\frac{1}{g(x)}\right]' = \frac{-g'(x)}{g^2(x)}$$

Σύνθετη

$$[(g \circ f)(x)]' = g'(f(x)) \cdot f'(x)$$