Wzory na pochdne

$$(C)' = 0$$

$$(x^n)' = nx^{n-1}$$

$$(x)' = 1$$

$$\left(\frac{a}{x}\right)' = -\frac{a}{x^2}$$

$$(\sqrt{x})' = \frac{1}{2\sqrt{x}}$$

$$(a^x)' = a^x \ln a$$

$$(e^x)' = e^x$$

$$(\log_a x)' = \frac{1}{x \ln a}$$

$$(\ln x)' = \frac{1}{x}$$

$$(\sin x)' = \cos x$$

$$(\cos x)' = -\sin x$$

$$(tgx)' = \frac{1}{\cos^2 x}$$

$$(ctgx)' = -\frac{1}{\sin^2 x}$$

$$(\arcsin x)' = \frac{1}{\sqrt{1-x^2}}$$

$$(\arccos x)' = -\frac{1}{\sqrt{1-x^2}}$$

$$(arctgx)' = \frac{1}{x^2+1}$$

$$(arcctgx)' = -\frac{1}{x^2+1}$$

Właściwości pochodnych

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

$$[f(x)-g(x)]' = f'(x)-g'(x)$$

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

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

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

Przydatne wzory w liczeniu pochodnych

$$\sqrt[b]{x^a} = x^{\frac{a}{b}}$$

$$\frac{1}{x^a} = x^{-a}$$