TABEL DE DERIVATE

CLASA A 11-A · ANALIZĂ MATEMATICĂ

1 $c' = 0$

2 $x' = 1$

3 $(x^n)' = n\,x^{n-1}$

4 $(\sqrt{x})' = \dfrac{1}{2\sqrt{x}}$

5 $\left(\dfrac{1}{x}\right)' = -\dfrac{1}{x^2}$

6 $(e^x)' = e^x$

7 $(a^x)' = a^x \ln a$

8 $(\ln x)' = \dfrac{1}{x}$

9 $(\log_a x)' = \dfrac{1}{x \ln a}$

10 $(\operatorname{arctg} x)' = \dfrac{1}{1+x^2}$

11 $(\operatorname{arcctg} x)' = -\dfrac{1}{1+x^2}$

12 $(\arcsin x)' = \dfrac{1}{\sqrt{1-x^2}}$

13 $(\arccos x)' = -\dfrac{1}{\sqrt{1-x^2}}$

14 $(\sin x)' = \cos x$

15 $(\cos x)' = -\sin x$

16 $(\operatorname{tg} x)' = \dfrac{1}{\cos^2 x}$

17 $(\operatorname{ctg} x)' = -\dfrac{1}{\sin^2 x}$

18 $\left(\sqrt{x^2+a^2}\right)' = \dfrac{x}{\sqrt{x^2+a^2}}$

19 $\left(\sqrt{x^2-a^2}\right)' = \dfrac{x}{\sqrt{x^2-a^2}}$

20 $\left(\sqrt{a^2-x^2}\right)' = -\dfrac{x}{\sqrt{a^2-x^2}}$

REGULI DE DERIVARE

SUMA

$(f+g)' = f' + g'$

DIFERENȚA

$(f-g)' = f' - g'$

PRODUSUL

$(f \cdot g)' = f'g + fg'$

RAPORTUL

$\left(\dfrac{f}{g}\right)' = \dfrac{f'g - fg'}{g^2}$

FUNCȚIA COMPUSĂ

$(f(u(x)))' = f'(u(x)) \cdot u'(x)$