

Таблиця похідних елементарних функцій

$$1. (c)' = 0, \quad c = const$$

$$2. (x^n)' = n x^{n-1},$$

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

$$\left(\frac{1}{x}\right)' = -\frac{1}{x^2},$$

$$(x)' = 1$$

$$3. (a^x)' = a^x \ln a, \quad \text{де } a = const$$

$$\text{зокрема, } (e^x)' = e^x$$

$$4. (\log_a x)' = \frac{1}{x \ln a}, \quad \text{де } a = const$$

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

$$5. (\sin x)' = \cos x$$

$$6. (\cos x)' = -\sin x$$

$$7. (\operatorname{tg} x)' = \frac{1}{\cos^2 x}$$

$$8. (\operatorname{ctg} x)' = -\frac{1}{\sin^2 x}$$

$$9. (\arcsin x)' = \frac{1}{\sqrt{1-x^2}}$$

$$10. (\arccos x)' = -\frac{1}{\sqrt{1-x^2}}$$

$$11. (\operatorname{arctg} x)' = \frac{1}{1+x^2}$$

$$12. (\operatorname{arcctg} x)' = -\frac{1}{1+x^2}$$