

Найти производные функций

1. $y = \arcsin(x^2 + x - 1)$;

2. $y = \sqrt{9 - x^2} + 2\arcsin \frac{x}{3}$;

3. $y = \operatorname{arctg} \frac{x}{\sqrt{1+x^2}}$;

4. $y = \arccos \frac{x}{\sqrt{7-x^2}} - e^x \cos^3 x$;

5. $y = (\sin x)^{\sqrt{x}}$;

6. $y = x^{-x} e^{2x}$;

7. $y = \ln(x + \sqrt{x^2 + 6})$;

8. $y = 3^{\arcsin 3x}$;

9. $y = \left(\frac{5x-8}{5+x}\right)^3$;

10. $y = \ln \sin 2x \sqrt{\cos(x^2 - 1)}$;

11. $y = \left(\frac{3x-1}{2x}\right)^{\frac{3}{5}} \sqrt[6]{\frac{x^2+1}{x^3-1}} \sqrt[5]{\frac{x-1}{2x+4}}$;

12. $y = x^{\sqrt{\ln x}}$;

13. $\begin{cases} x = \cos 2t \\ y = \sin 3t \end{cases}$;

14. $\begin{cases} x = \arccos \frac{1}{t} \\ y = \arcsin \frac{1}{t} \end{cases}$;

15. $\begin{cases} x = e^t \sin 2t \\ y = e^t \cos 2t \end{cases}$;

16. $\sqrt{x+y} + \sqrt{2x+3y} - 3 = 0$;

17. $\ln xy + \cos(x^2 + y^2) - xy = 0$;

18. $\operatorname{arctg}(2x - 5y) = x$;

19. $\sin^3 xy + \cos^2(x + x^2 y) = 0$;

20. $xe^y + ye^x + e^2 = 0$.