

1. $\frac{1}{x^2} = x^{-2}$ $\frac{d}{dx} x^{-2} = -2x^{-3} = -\frac{2}{x^3}$

2. $\frac{d}{dx} \ln(x) = \frac{1}{x}$

3. $\frac{d}{dx} e^x = e^x$

4. $\frac{d}{dx} \sin(x) = \cos(x)$

5. $\frac{d}{dx} \cos(x) = -\sin(x)$

6. $\frac{d}{dx} \tan(x) = \sec^2(x)$

7. $\frac{d}{dx} \cot(x) = -\csc^2(x)$

8. $\frac{d}{dx} \sec(x) = \sec(x)\tan(x)$

9. $\frac{d}{dx} \csc(x) = -\csc(x)\cot(x)$

10. $\frac{d}{dx} \arcsin(x) = \frac{1}{\sqrt{1-x^2}}$

11. $\frac{d}{dx} \arccos(x) = \frac{-1}{\sqrt{1-x^2}}$

12. $\frac{d}{dx} \arctan(x) = \frac{1}{1+x^2}$

13. $\frac{d}{dx} \operatorname{arccot}(x) = \frac{-1}{1+x^2}$

14. $\frac{d}{dx} \operatorname{arcsec}(x) = \frac{1}{x\sqrt{1-x^2}}$

15. $\frac{d}{dx} \operatorname{arccsc}(x) = \frac{-1}{x\sqrt{1-x^2}}$

16. $\frac{d}{dx} \ln(x^2) = \frac{2}{x}$

17. $\frac{d}{dx} \ln(\sqrt{x}) = \frac{1}{2x}$

18. $\frac{d}{dx} \ln\left(\frac{1}{x}\right) = -\frac{1}{x}$

19. $\frac{d}{dx} \ln(x^2 + 1) = \frac{2x}{x^2 + 1}$

20. $\frac{d}{dx} \ln(x^2 - 1) = \frac{2x}{x^2 - 1}$

21. $\frac{d}{dx} \ln(x^2 + x + 1) = \frac{2x + 1}{x^2 + x + 1}$

22. $\frac{d}{dx} \ln(x^2 - x + 1) = \frac{2x - 1}{x^2 - x + 1}$

23. $\frac{d}{dx} \ln(x^2 + 2x + 1) = \frac{2x + 2}{x^2 + 2x + 1}$

24. $\frac{d}{dx} \ln(x^2 - 2x + 1) = \frac{2x - 2}{x^2 - 2x + 1}$

25. $\frac{d}{dx} \ln(x^2 + 1) = \frac{2x}{x^2 + 1}$

1. $\frac{d}{dx} x^2 = 2x$

2. $\frac{d}{dx} x^3 = 3x^2$

3. $\frac{d}{dx} x^4 = 4x^3$

4. $\frac{d}{dx} x^5 = 5x^4$

5. $\frac{d}{dx} x^6 = 6x^5$

6. $\frac{d}{dx} x^7 = 7x^6$

7. $\frac{d}{dx} x^8 = 8x^7$

8. $\frac{d}{dx} x^9 = 9x^8$

9. $\frac{d}{dx} x^{10} = 10x^9$

10. $\frac{d}{dx} x^{11} = 11x^{10}$

11. $\frac{d}{dx} x^{12} = 12x^{11}$

12. $\frac{d}{dx} x^{13} = 13x^{12}$

13. $\frac{d}{dx} x^{14} = 14x^{13}$

14. $\frac{d}{dx} x^{15} = 15x^{14}$

15. $\frac{d}{dx} x^{16} = 16x^{15}$

16. $\frac{d}{dx} x^{17} = 17x^{16}$

17. $\frac{d}{dx} x^{18} = 18x^{17}$

18. $\frac{d}{dx} x^{19} = 19x^{18}$

19. $\frac{d}{dx} x^{20} = 20x^{19}$

20. $\frac{d}{dx} x^{21} = 21x^{20}$

21. $\frac{d}{dx} x^{22} = 22x^{21}$

22. $\frac{d}{dx} x^{23} = 23x^{22}$

23. $\frac{d}{dx} x^{24} = 24x^{23}$

24. $\frac{d}{dx} x^{25} = 25x^{24}$

25. $\frac{d}{dx} x^{26} = 26x^{25}$

