

Derivator från α till ω .

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Derivera

$$\alpha. 2x^3 - 5x^2 + \frac{3}{x},$$

$$\beta. x^3(x^2 - 1)^2,$$

$$\gamma. \frac{x}{1 - x^2},$$

$$\delta. \frac{3x + 1}{x^5},$$

$$\varepsilon. \sqrt[3]{x},$$

$$\zeta. \sqrt{x\sqrt{x\sqrt{x}}},$$

$$\eta. e^x(x^2 + 2x - 2),$$

$$\vartheta. x \cos x,$$

$$\iota. x \ln x - x,$$

$$\kappa. \frac{1}{\ln x},$$

$$\lambda. (ax + b)^n,$$

$$\mu. \sin^3 x,$$

$$\nu. \sin 3x,$$

$$\xi. \ln(\sin x),$$

$$o. \frac{1}{(1 + x^2)\sqrt{1 + x^2}},$$

$$\pi. \sqrt{x + \sqrt{x}},$$

$$\rho. \ln \frac{1 - x}{1 + x},$$

$$\sigma. \ln \tan\left(\frac{x}{2} + \frac{\pi}{4}\right),$$

$$\tau. \frac{1}{a} \arctan \frac{x}{a},$$

$$v. \sqrt{2}\sqrt{1 + x^2},$$

$$v. e^{x \ln x},$$

$$\varphi. x^x,$$

$$\chi. x^{\sin x},$$

$$\psi. (x^3 + x)^{\arctan x}.$$

Svar(förhoppningsvis korrekta...)

$$\alpha. 6x^2 - 10x - \frac{3}{x^2},$$

$$\beta. x^2(7x^4 - 10x^2 + 3),$$

$$\gamma. \frac{1+x^2}{(1-x^2)^2},$$

$$\delta. -\frac{5+12x}{x^6},$$

$$\varepsilon. \frac{1}{3\sqrt[3]{x^2}},$$

$$\zeta. \frac{7}{8\sqrt[8]{x}},$$

$$\eta. e^x(x^2 + 4x),$$

$$\vartheta. \cos x - x \sin x,$$

$$\iota. \ln x,$$

$$\kappa. -\frac{1}{x(\ln x)^2},$$

$$\lambda. na(ax + b)^{n-1},$$

$$\mu. 3 \sin^2 x \cos x,$$

$$\nu. 3 \cos 3x,$$

$$\xi. \cot x,$$

$$\omicron. -\frac{3x}{(1+x^2)^{\frac{5}{2}}},$$

$$\pi. \frac{1+2\sqrt{x}}{4\sqrt{x^2+x\sqrt{x}}},$$

$$\varrho. \frac{2}{x^2-1},$$

$$\sigma. \frac{1}{\cos x},$$

$$\tau. \frac{1}{a^2+x^2},$$

$$\upsilon. \frac{x \ln 2}{2\sqrt{1+x^2}} \sqrt{2} \sqrt{1+x^2},$$

$$\varphi. x^x(1 + \ln x),$$

$$\chi. x^x(1 + \ln x),$$

$$\psi. x^{\sin x} \left(\frac{\sin x}{x} + \cos x \ln x \right),$$

$$\omega. (x^3+x)^{\arctan x} \left(\frac{x \ln(x^3+x) + (1+3x^2) \arctan x}{x(x^2+1)} \right).$$