

اليسا خان محرمی

نسق ناپیدا است

در $n=0$ $\rightarrow$ $n=1$ سیم تابع باید در

نسق باید باشد زیرا سوال گفته فقط در یک نقطه نسق

$$f(n) = \begin{cases} a + |n| & n < 1 \\ b \sqrt[n]{n} & n \geq 1 \end{cases}$$

$$a + 1 = b$$

①

مقادیر برابر

$$1 = \frac{2}{3\sqrt[n]{n}} \cdot b$$

②

نسق برابر

در هر دو نقطه نسق ناپیدا است
اما هر دو نقطه را با هم نسق

$$a + b = \frac{1}{2} + \frac{2}{2} = \frac{3}{2}$$

$$a = \frac{1}{2} \quad b = \frac{3}{2}$$

$$f'(1) \Rightarrow \frac{1 \cdot n - \varepsilon}{\sqrt[n]{n^2}} = \frac{-2n + \varepsilon}{\sqrt[n]{n^2}} \Rightarrow f'(1) = -2(1) - (2) \times \frac{2}{3\sqrt{1}}$$

③

①

$$-2 - \frac{2}{3} = -\frac{10}{3}$$

$$g'(1) \Rightarrow \frac{d|x-2| + \sqrt[n]{n}}{\sqrt[n]{n^2}} = \frac{-x+2 + \sqrt[n]{n}}{\sqrt[n]{n^2}} \Rightarrow g'(1) = \frac{-1 + \frac{2}{\sqrt{1}} + \sqrt{1}}{1} = \frac{1}{1}$$

$$\frac{\sqrt{2}}{2} - 1 = \frac{2}{2} - \frac{2\sqrt{2}}{2}$$

$$f'(1) - g'(1) = \frac{-10}{3} - \frac{2}{3} = \frac{-12}{3} = -4$$

$$g(x) = \frac{\sqrt{x^2 - 2x + 2} + \sqrt[n]{n}}{\sqrt[n]{n^2}} = \frac{|x-2| + \sqrt[n]{n}}{\sqrt[n]{n^2}} \quad x=1 \rightarrow \frac{(-1+2) + \sqrt{1}}{\sqrt{1^2}}$$

$$g'(x) = \frac{(-1 + \frac{2}{\sqrt{1}})(1) - \frac{2}{\sqrt{1}}(1 + \sqrt{1})}{\sqrt{1^2}} \rightarrow g'(1) = \frac{(-1 + \frac{2}{\sqrt{1}}) - \frac{2}{\sqrt{1}}(1 + \sqrt{1})}{1} = -\frac{5}{3} - \frac{\sqrt{3}}{3}$$

$$f(n) = \begin{cases} bu + c & n < a \\ \frac{1}{n} & n \geq a \end{cases}$$

$$ba + c = \frac{1}{a}$$

مقادیر برابر

$$b = \frac{1}{a^2}$$

نسق برابر

$$ba - \frac{1}{a^2} + c = \frac{1}{a}$$

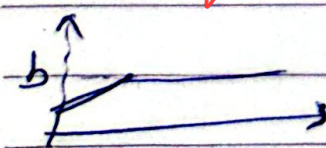
$$c = \frac{2}{a}$$

$$ac = 2$$

$$b + n - a \quad n \geq a$$

اگر $m \neq 1$ باشد نسق ناپیدا است

$$b \quad n < a$$



s.a.m

$$g(u) = \frac{1}{u^2 - |u^2|} \rightarrow \frac{1}{2u^2}$$

$$f \circ g = \frac{1}{\sqrt{\frac{1}{2u^2} + \left| \frac{1}{2u^2} \right|}} = \frac{1}{\sqrt{\frac{1}{u^2}}} = u$$

نکته: $\frac{1}{2u^2} + \frac{1}{2u^2}$

$$(f \circ g)'(u) = f'(g(u)) \times g'(u) = 1$$

$$f'(r) = f'(r) = r$$

$$a = (ra - a) = r \quad +ka + a = r \quad +ka = -r$$

$$\frac{f(r)}{f'(r)} = \frac{-\frac{1}{r}}{\frac{r}{r}} = -\frac{1}{r}$$

$$f(r) + \frac{r}{r} f'(r) = 0 \quad a = \frac{r}{2} \quad a = -\frac{r}{r}$$

$$(f \circ g)' = f'(g(u)) \times g'(u) = 7 \times \frac{14}{\sqrt{r}} = \frac{98}{\sqrt{r}}$$

$$g'(u) = \frac{1}{\sqrt{u^2 - 1}} \Rightarrow \frac{2u}{\sqrt{(u^2 - 1)^3}} = \frac{2 \times \frac{r}{\sqrt{r}}}{\sqrt{(r - 1)^3}} = \frac{2}{\sqrt{r} \sqrt{(r - 1)^3}}$$

مشتق میگیریم

جمع میکنیم

$$① g(u) = \frac{1}{\sqrt{u^2 - 1}} = \frac{1}{\sqrt{\frac{1}{r} - 1}}$$

$$f'(g(u)) = f'(r) \Rightarrow \left(u \left[r^2 + \frac{1}{r} \right] \right)^r + 1 \Rightarrow (ru)^{r+1} \Rightarrow f'(r) = r \times \frac{1}{r} = 1$$

$$f'(-1) = \frac{3}{2}$$

$$g'(-r) = \frac{r}{r} + \frac{9}{r} = \frac{1r}{r} + 7$$

$P'(x) = \frac{5}{x}$ ← المشتق

$$\lim_{h \rightarrow 0} \frac{f(a-h) - r f(a-h) + r (f(a-h) - r)}{h(a-h)} = \frac{(f(a-h) - r)(\cancel{f(a-h)} - 1)}{h(\cancel{a-h})}$$

$P(A) = 1$

$$f(u) = (u-r)^r \sqrt{x+r} \rightarrow f'(u) = \sqrt{x+r} + (u-r) \cdot \frac{1}{\sqrt{x+r}} \rightarrow f'(a) = r + \frac{1}{1+r} = \frac{r(a)}{1+r}$$

$$f(u) = (u - \varepsilon) \sqrt[3]{u + r} \rightarrow f'(u) = 1 \times r + 1 \times \frac{\sqrt[3]{(u+r)^2}}{3 \times \sqrt[3]{u+r}} = r + \frac{1}{3}$$

$$\frac{1}{T} \times \frac{1}{\Delta} = \frac{1}{r} \lim_{h \rightarrow 0} \frac{f'(\Delta-h) - rf'(\Delta-h) + r}{h(\Delta-h)} = \lim_{h \rightarrow 0} \frac{-rf'(\Delta-h)f'(\Delta-h) + rf'(\Delta-h)}{\Delta - rh} = \left\{ \frac{1}{r} \right\}$$

$$T_y - T_{uf} = 1$$

$$a_1 = \frac{r}{7}$$

$$\frac{1}{2}$$

عمور

$$-Y$$

سبب وقوعه

$$n^r - \epsilon_{n+\delta} = \gamma_n - \epsilon, \quad -r \quad \gamma_n = r$$

$$\gamma_k = \gamma$$

$$1 - \varepsilon + 0 = \underline{r} = y$$

$$n=1$$

$$(n, y) = (1, 2)$$