

ب. دلیل نپذیرفتن اینم فرجه شما لطفاً لحاظ من شود

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روشنه
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11:13
رجوع آسانی

$$f(m) = \begin{cases} a + \sqrt{m^2} & ; m \leq 1 \\ b \sqrt[3]{m^2} & ; m > 1 \end{cases}$$

$$f_-(1) = f_+(1) \quad / \quad f'_-(1) = f'_+(1)$$

$$a + 1 = b$$

$$\Downarrow *$$

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

$$a + \frac{1}{\sqrt{m^2}} = \frac{b \times 2m}{3 \sqrt[3]{(2m)^2}}$$

$$\frac{1}{\cancel{2}} \times 1 = \frac{1}{\cancel{3}} b \Rightarrow 1b = 3 \rightarrow b = \frac{3}{1}$$

$$a + b = \frac{1}{3} + 1 = \frac{4}{3} = \boxed{2} \quad \checkmark$$

$$f'(1) - 2g'(1) = [f(1) - 2g(1)]'$$

در اای ۱ منفی است
پس ضرب می شود

$$2x \sqrt{(x-2)^2} = 2|x-2|$$

$$f(m) - 2g(m) = \frac{|2m-2| - 2\sqrt{m^2-2m+2} - 2\sqrt{3m}}{3\sqrt[3]{m^2}} = \frac{-2m+2+2m-2-2\sqrt{3m}}{3\sqrt[3]{m^2}}$$

$$\left(\frac{-2x+2}{3\sqrt[3]{m^2}} \times \sqrt[3]{m^2} \right) - \left(\frac{2m}{3\sqrt[3]{m^2}} \times 1 - 2\sqrt{3m} \right) \xrightarrow{\text{مشتق}} \frac{-2\sqrt{3m}}{3\sqrt[3]{m^2}}$$

$$m=1 \rightarrow \left(\frac{-2 \times 1 + 2}{3\sqrt[3]{1^2}} \times 1 \right) - \left(\frac{2}{3} \times 1 - 2\sqrt{3} \right) = \frac{-2}{3} + \frac{4\sqrt{3}}{3} = \frac{2(\sqrt{3}-1)}{3} \quad \checkmark$$

$$f(a) = f_+(a) \quad / \quad f'_-(a) = f'_+(a)$$

$$b + c = -\frac{1}{a}$$

$$b = \frac{-1}{a^2} \Rightarrow b a^2 = -1 \Rightarrow b a = -\frac{1}{a} *$$

$$-\frac{1}{a} + c = -\frac{1}{a} \Rightarrow c = \frac{1}{a}$$

$$a \times c \xrightarrow{**} \frac{1}{a} \times a = \boxed{1} \quad \checkmark$$

$$\lim_{n \rightarrow a^+} f(n) = \lim_{n \rightarrow a^-} f(n) = fa \Rightarrow a=b$$

$$f'(n) = \begin{cases} 0 & n < a \\ (n-a)^{n-1} & n \geq a \end{cases}$$

$$\begin{aligned} n=0 & \rightarrow f'(n) = x \\ n=1 & \rightarrow f'(n) = 0 \\ n > 0 & \rightarrow f'(n) = x \\ f'(a) & = x \\ f(a) & = 0 \end{aligned}$$

IV

Oct 2024

$$g'(n)f'(g(n)) = (f \circ g)'$$

$$f \circ g = \frac{1}{\sqrt{\frac{1}{n^2 - |n^2|} - \frac{1}{n^2 - |n^2|}}}$$

$$\text{sub} \Rightarrow f'(x) = -a / f(x) = -x a - a$$

$$-a + x a + a = x \Rightarrow x a = -x \rightarrow a = -\frac{x}{x}$$

$$\frac{f(x)}{f'(x)} = \frac{-x a - a}{-a} = \frac{-x(-\frac{x}{x}) - a}{\frac{x}{x}} = \frac{\frac{x}{x}}{\frac{x}{x}} = \boxed{-\frac{1}{x}}$$

$$f \circ g'(\frac{x}{\sqrt{x}}) = f'(\frac{x}{\sqrt{x}}) \times f'(g(\frac{x}{\sqrt{x}}))$$

$$g(\frac{x}{\sqrt{x}}) = x$$

$$\frac{-x a}{(\frac{x}{\sqrt{x} - 1})^x} = -x \sqrt{x}$$

$$[n^2 + \frac{1}{x}] \xrightarrow{n \rightarrow \infty} f(n) = 1/n^2$$

$$f \circ g'(\frac{x}{\sqrt{x}}) = \frac{-a/x \sqrt{x}}{-1/x \sqrt{x}}$$

18 مبارك $f'(-1) = f'(1) = 10$

9 Oct. 2024
1226 ربيع الثاني 5

$$g'(m) = f'(m+1) + 3f'(3m+1)$$

$$g'(-1) = f'(-1) + 3f'(1) = 4f'(-1) = 40$$

$$\lim_{h \rightarrow 0} \frac{(f(a-h))^2 - 3f(a-h) + 2}{a-h-h^2} \stackrel{\text{Hop}}{=} \frac{2(-f'(a-h))f(a-h) + 3f'(a-h)}{a-h}$$

$$= \frac{-2f'(a)f(a) + 3f'(a)}{a} = \frac{f'(a)}{a} = \frac{-10}{12}$$

$$f(a) = 2$$

$$f'(a) = 2 + \frac{1}{12} = \frac{25}{12}$$

$$f'(m) = \frac{1}{3\sqrt[3]{(m+2)^2}}$$

خط معادلات برعش $\Rightarrow y = 1 + 3m \xrightarrow{\div 3} y = \frac{m}{3} + \frac{1}{3} \xrightarrow{\text{مشتق}} \frac{1}{3}$

مشتق = 0

$$3m+1 = m^2 - 3m+2 \Rightarrow m^2 - \frac{4m}{3} + \frac{1}{3} = 0$$

$$\Delta = \frac{+ \frac{4}{3} \pm \frac{1}{3}}{2} = \frac{1}{3} \quad \frac{1}{3}$$

عوض $\rightarrow$ قرينه = سيب

$$\Rightarrow m = 2$$

$$m=1 \Rightarrow y=2$$