

۸ - $\Rightarrow$ مشتق نپذیرد $\rightarrow x=0$ در $a+|n|$ ضابطه یار

۹ - $\Rightarrow f'_{(n)} = \frac{2nb}{2\sqrt{n}} = \frac{nb}{\sqrt{n}} \Rightarrow f'_{(n)} = \frac{1}{2} \Rightarrow$ ضابطه یار $\rightarrow$ تابع در $x=0$ مشتق نپذیرد

۱۰ - $\frac{2}{3}b=1 \Rightarrow b=\frac{3}{2} \Rightarrow a+1=\frac{3}{2} \Rightarrow a=\frac{1}{2}$ ضابطه یار

۱۱ - $\Rightarrow a+b=\frac{1}{2}+\frac{3}{2}=2 \Rightarrow$ تابع $\leftarrow$ ۲

۱۲ - $f'_{(n)} - rg'_{(n)} = (f'_{(n)} - rg'_{(n)})' \Rightarrow f'_{(n)} - rg'_{(n)} = \frac{(2-2n) - 2(2-n+\sqrt{2n})}{\sqrt{2n}}$

۱۳ - $= \frac{-2\sqrt{2n}}{\sqrt{2n}} = -\frac{\sqrt{2n}}{\sqrt{2n}} = -\frac{\sqrt{2}x^{\frac{1}{2}}}{x^{\frac{1}{2}}} = -\sqrt{2}x^{-\frac{1}{2}} \rightarrow \frac{\sqrt{2}}{2}x^{-\frac{1}{2}} \Rightarrow$

۱۴ - $\Rightarrow f'_{(n)} - rg'_{(n)} = \left(\frac{\sqrt{2}}{2}\right) -$ تابع $\checkmark$ ۲

۱۵ - $f'_+(a) = f'_-(a) \Rightarrow b = -\frac{1}{a} \Rightarrow$ ضابطه یار $f'_+(a) = f'_-(a)$ ۲

۱۶ - $ba+c = \left(\frac{1}{a}\right)a+c = -\frac{1}{a}+c = \frac{1}{a} \Rightarrow c = \frac{2}{a} \Rightarrow ac=2 \Rightarrow$ تابع $\leftarrow$ ۲

۱۷ - $\lim_{x \rightarrow a^+} f'_+(a) = \lim_{x \rightarrow a^-} f'_-(a) \Rightarrow f'_+(a) \neq f'_-(a)$

۱۸ - $f'_+(a) = 0 / f'_-(a) = m(n-a)^{m-1} \neq 0 \xrightarrow{x=a} m \leq 1 \quad m \neq 0$

۱۹ - $\Rightarrow m=1 \rightarrow$ مماس / مماس $\checkmark$ ۲

۲۰

۵- $g'_n f'(g_{n-1}) (f \circ g)'_n \Rightarrow$

$f \circ g = \frac{1}{n^2} \quad f'_n = \frac{1}{2n} = f \circ g = n \Rightarrow (f \circ g)'_n = 1$

۶- $g = -an - \delta \rightarrow$ فرض بود: $f'_n = g'_n, f'_n = g'_n$

$f'_n = g'_n = -2a - \delta / f'_n = g'_n = -a / f'_n - f'_n = -a + 2a + \delta = 2$
 $\Rightarrow a = -\frac{f'_n}{2} = f'_n = -\frac{1}{2} / f'_n = g'_n = -\frac{1}{2} / \frac{f'_n}{f'_n} = \frac{1}{-2} = -\frac{1}{2}$

۷- $f'_n = n^2 + 1 / (f \circ g)'_n = g'_n f'(g_{n-1})$

$g = (n^2 - 1)^{\frac{1}{2}} \rightarrow \frac{-1 \times 2n \times (n^2 - 1)^{-\frac{1}{2}}}{2} = -\frac{1}{\sqrt{2}} = g'$

① $g_n = 2 \Rightarrow f'_n = 2n = 4 \Rightarrow (f \circ g)'_n = -2 \sqrt{2} = -4 \sqrt{2} \Rightarrow$

$\Rightarrow$ پاسخ: $\frac{1}{2}$ برابر است

۸- $T = \delta, \text{ س. ر. } \Rightarrow f'_{(-1)} = f'_{(1)} = \frac{1}{2}$

$g'_n = f'_n + 3f'_n \xrightarrow{n=2} g'_{(-1)} = f'_{(-1)} + 3f'_{(1)} =$

$\frac{1}{2} + \frac{3}{2} = 2 \Rightarrow g'_{(-1)} = 2$

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

$$\frac{-2f'(a)f'(a) + 2f'(a)}{a} = \frac{-2 \times \frac{25}{12} \times 2 + 2 \times \frac{25}{12}}{a} = \frac{-5}{12}$$

فروردین
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۱۴۰۴

سه شنبه
الثلاثاء

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08 ۹ - % $\Rightarrow$ Hop $\rightarrow \frac{-2f'(a-h)f'(a-h) + 3f'(a-h)}{-2h+a}$

09

10 $\frac{-2f'_0 f_0 + 3f_0}{0} / f_0 = 2 \checkmark / f'_0 = 2 + \frac{1}{12} = \frac{25}{12} \checkmark$

11 $\frac{-2(\frac{25}{12})(2) + 6}{0} = \frac{-\frac{25}{3} + \frac{18}{2}}{0} = \frac{-7}{10}$

12

13 ۱۰ - $f'_0 = \frac{2}{3} = \frac{1}{2} \Rightarrow$ عدد خط $= -\frac{2}{3}$

14 $y' = -2 = 2n - 2 \Rightarrow n = 1 /$ نقطه $(1, 2)$

15

$y = f(g(u)) \rightarrow y' = g'(u)f'(g(u)) \xrightarrow{u = \frac{v}{\sqrt{n}}} y' = g'(\frac{v}{\sqrt{n}})f'(g(\frac{v}{\sqrt{n}})) \rightarrow y' = g'(\frac{v}{\sqrt{n}})f'(r)$ سوال ۷

17 $g(u) = \frac{1}{\sqrt{2u^2-1}} = (2u^2-1)^{-\frac{1}{2}} \rightarrow g'(u) = -\frac{1}{2} (2u^2-1)^{-\frac{3}{2}} \times 2u = -\frac{u}{(2u^2-1)^{\frac{3}{2}}}$

18 $g'(\frac{v}{\sqrt{n}}) = \frac{v}{\sqrt{n}} \times \frac{1}{\sqrt{n}} (\frac{1}{n})^{-\frac{3}{2}} = \frac{v}{\sqrt{n}} \times \frac{1}{\sqrt{n}} = -\frac{v \times \sqrt{2}}{n^{\frac{3}{2}}} = -\frac{v}{n\sqrt{2}} \rightarrow g'(\frac{v}{\sqrt{n}}) = -\frac{1}{\sqrt{2}}$

$f(u) = 19u^2 + 1 \rightarrow f'(u) = 38u \rightarrow f'(r) = 4r$

$y' = g'(\frac{v}{\sqrt{n}})f'(r) = -\frac{1}{\sqrt{2}} \times 4r = 4 \times (-\frac{1}{\sqrt{2}}\sqrt{2}) \rightarrow$ برابر ۴