

نام و نام خانوادگی: شماره ۲۲ کلاس: پاس‌نامه تشریحی تکلیف شماره ۲۲

نقطه‌میزی $\perp \Rightarrow$ بررسی پیوستگی ①

if $a > 1 \Rightarrow b \Rightarrow a - b = -1$
if $a < 1 \Rightarrow a + 1$

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

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بررسی مشتق چپ و راست $\Rightarrow a = 1$ ⑦

if $a < 1 \Rightarrow |a| \Rightarrow \frac{1}{a}$
if $a < 1 \Rightarrow b \cdot a^{\frac{1}{2}} \Rightarrow b \times \frac{1}{2} \times a^{-\frac{1}{2}} \Rightarrow \frac{1}{2} b \Rightarrow \frac{1}{2} b = 1 \Rightarrow b = \frac{2}{1}$

$f(a) \Rightarrow \frac{2|a-1|}{\sqrt[3]{a^2}}, g(a) = \frac{|a-1| + \sqrt{3a}}{\sqrt[3]{a^2}}$

$f'(1) - 2g'(1) \Rightarrow (f-2g)'(1) \Rightarrow \frac{2|a-1|}{\sqrt[3]{a^2}} - \frac{2|a-1| + 2\sqrt{3a}}{\sqrt[3]{a^2}}$

$\Rightarrow \frac{-2\sqrt{3a}}{\sqrt[3]{a^2}} \Rightarrow -2\sqrt{3} \times a^{-\frac{1}{2}} \Rightarrow -\frac{2}{\sqrt{a}} \times a^{-\frac{1}{2}} \times -\sqrt{3}$

$\Rightarrow \frac{\sqrt{3}}{a} \times a^{-\frac{1}{2}} \Rightarrow \frac{\sqrt{3}}{a^{\frac{3}{2}}}$
 $a=1$

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بررسی پیوستگی ①

$\Rightarrow ac = 5$

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

$ab + c = \frac{1}{a} \Rightarrow a \times \frac{1}{a} + c = \frac{1}{a} \Rightarrow c = \frac{2}{a}$

بررسی مشتق چپ و راست ⑦

$ac = 2$

if $a < a \Rightarrow b \Rightarrow b = -\frac{1}{a^2}$
if $a > a \Rightarrow \frac{1}{a^2}$

برای اینکه نقاط گوشه‌ای را به الیم بایم بین دریا نقطه مشتق چپ و راست مندرت بوده و نباید ۵۵ شود و نباید نابینایی داشته باشد

if $m = 0 \Rightarrow f'_+(a) = 0, f'_-(a) = 0 \Rightarrow x$

if $m = 1 \Rightarrow f'_+(a) = 1, f'_-(a) = 0 \Rightarrow \checkmark$

if $m = 2 \Rightarrow f'_+(a) = 0, f'_-(a) = 0 \Rightarrow x$

if $m = 3 \Rightarrow f'_+(a) = 0, f'_-(a) = 0 \Rightarrow x$

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$g'(0) \cdot f'(g(0)) \Rightarrow f \circ g(0)$

$g(a) \xrightarrow{\text{مشتق}} g'(a) = \frac{1}{2a^3}$

$\Rightarrow f \circ g'(\sqrt[3]{2}) \Rightarrow f(g(a)) = \frac{1}{\sqrt[3]{\frac{2}{2a^3}}} \Rightarrow a \Rightarrow f \circ g' = \frac{1}{2}$

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$$y = -ax - a \Rightarrow (r, -ra - a)$$

$$f'(r) - f(r) = r \Rightarrow (-a) - (-ra - a) = r$$

$$ra = -r \Rightarrow a = -\frac{r}{r}$$

$$\Rightarrow f'(r) = -a \Rightarrow \frac{r}{r} \Rightarrow \frac{f(r)}{f'(r)} = \frac{-\frac{1}{r}}{\frac{r}{r}} \Rightarrow \underline{-\frac{1}{r}} \quad \checkmark$$

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

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

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

$$f(u) = 4u^2 + 1 \rightarrow f'(u) = 8u \rightarrow \underline{f'(r) = 4r} \quad y' = g'(\frac{r}{\sqrt{r}}) f'(r) = -\sqrt{r} \times 4r = r \times (-4\sqrt{r})$$

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$$\Delta \rightarrow (u, u+\Delta) \Rightarrow f(u) = f(u+\Delta) \Rightarrow f'(u) = f'(u+\Delta)$$

$$\Rightarrow g(u) = f(u+1) + f(3u+10) \Rightarrow g'(u) = f'(u+1) + 3f'(3u+10)$$

$$\Rightarrow g'(-1) = f'(-1) + 3f'(4) \Rightarrow r \times \frac{r}{r} \Rightarrow \underline{4} \quad \checkmark \quad f'(-1) = f'(4) = \frac{r}{r}$$

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$$\lim_{h \rightarrow 0} \frac{f(a-h) - rf(a-h) + r}{h(a-h)} \Rightarrow \lim_{u \rightarrow 0} \frac{f(a-h) - r}{h} \times \lim_{h \rightarrow 0} \frac{f(a-h) - 1}{a-h} \Rightarrow$$

$$\lim_{h \rightarrow 0} \frac{f(a-h) - r}{h} \times \frac{f(a) - 1}{a} \Rightarrow 0 \rightarrow \text{h.o.p} \Rightarrow -f(a) \times \frac{1}{a} \Rightarrow -\frac{ra}{r} \times \frac{1}{a} \Rightarrow \underline{-\frac{a}{r}} \quad \checkmark$$

$$f(a) \Rightarrow r + \frac{1}{\sqrt{1-r}} \Rightarrow r + \frac{1}{r} \Rightarrow \underline{\frac{ra}{r}}$$

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$$9y - 3u = 1 \Rightarrow y = \frac{1}{9}u + \frac{1}{9} \Rightarrow m = \frac{1}{9} \Rightarrow \underline{m' = -r}$$

$$y' = 2u - r \Rightarrow -r \Rightarrow \underline{u = 1} \Rightarrow y = r \Rightarrow \underline{(1, r)} \quad \checkmark$$

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