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نام و نام خانوادگی: یوسف عربیان ... پاسخنامه تشریحی تکلیف شماره ۷ ... کلاس

$$x-v = \frac{b}{ra} = \frac{3}{5} \xrightarrow{\text{انتقال}} 4$$

$$y-v = -\frac{1}{3}\left(\frac{3}{5}\right)^2 + \frac{2}{5} \times \frac{3}{5} + 1 = \frac{4}{5} \xrightarrow{\text{انتقال}} 3$$

$$\Rightarrow y_1 = -\frac{1}{3}\left(x - \frac{3}{5}\right)^2 + \frac{2}{5}\left(x - \frac{3}{5}\right) + 1 + \frac{1}{18}$$

$$a = -\frac{1}{3} \rightarrow y = -\frac{1}{3}(x-1)^2 + 3$$

$$-\frac{1}{3}(x-1)^2 = -3 \rightarrow (x-1)^2 = 9$$

$$\begin{cases} x=1 \\ x=7 \end{cases}$$

$$3x+2=1 \Rightarrow x = -\frac{1}{3} \Rightarrow \alpha = -\frac{1}{3}$$

$$\beta = 1 - 2f(1) \Rightarrow \beta = 1 - 2 \times \frac{1}{3} = -\frac{1}{3}$$

$$\alpha\beta = \frac{1}{9} \quad \checkmark$$

$$y = 3 - \sqrt{2x}$$

$$\textcircled{1} y = 3 - \sqrt{2(n+1)}$$

$$\textcircled{2} y = \sqrt{2(n+1)} - 3$$

$$\textcircled{3} y = \sqrt{2(n+1)} + 2$$

$$\sqrt{2n+2} + 2 = \frac{5}{3}$$

$$\sqrt{2n+2} = \frac{1}{3}$$

$$2n+2 = \frac{1}{9}$$

$$2n = -\frac{17}{9}$$

$$n = -\frac{17}{18} \quad \checkmark$$

$$Df(x-1) = (\alpha+1, \omega] \cup (-2, \omega)$$

$$Dg(x+1) = [-2, b-1) \Rightarrow \alpha = -3, b = 9 \quad \checkmark$$

$$a-b = -3-9 = -12 \quad \checkmark$$

$$-3 \leq x \leq \omega$$

$$\Rightarrow 0/\omega \leq \frac{x}{4} + 1 \leq 3/\omega$$

$$\Rightarrow Df = [-0/\omega, 3/\omega]$$

$$\max(f(x)) = 2$$

$$\Rightarrow \max(\sqrt{2f(x)-3}) = 1$$

$$\min(\sqrt{2f(x)-3}) = 0$$

$$\Rightarrow R_{y_1} = [0, 1]$$

$$R_{y_2} = [0, \sqrt{5}]$$

از آنجایی که عبارت زیر رادیکال دایم است $\Rightarrow Df = Dg = [-0/\omega, 3/\omega]$

در این نوع دار پایه ثابت است $\frac{1}{a}$ از هم جدا می شوند
 و از آنجا که رفتار تابع درست نیست پس a باید منفی باشد

$$\lim_{x \rightarrow \frac{1}{a}} \frac{x}{a} \times [ax] = \frac{1}{4}$$

$$\Rightarrow a = -2$$

$$b - a = 1 - (-2) = 3 \Rightarrow b = 1$$

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$$L(x) = \log_r x$$

$$① L(x+r) = \log_r^{x+r}$$

$$② L(-x+r) = \log_r^{-x+r}$$

$$③ L(-x+r) + 3 = -\log_r^{-x+r} + 3 = g(x) = 7 + 9 = 16$$

$$\Rightarrow g(-14) = \log_r^{14} + 3 = 7$$

$$\Rightarrow g(-92) = \log_r^{92} + 3 = 9$$

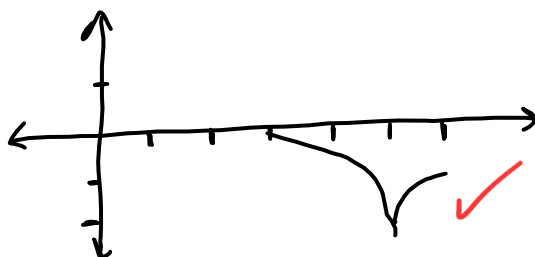
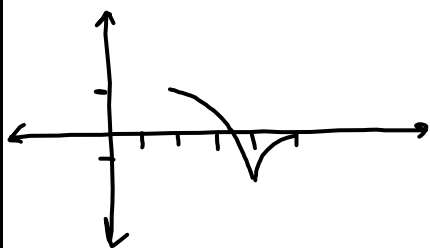
$$g(-14) + g(-92) = -4$$

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$$y = L(x)$$

$$y = L(x-1) - 1$$



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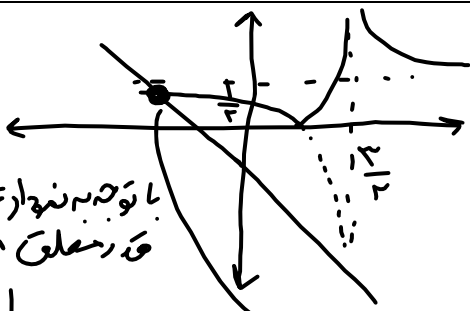
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$$g(x) = L(x-2) + 1$$

$$g(x) = \left| \frac{x-1}{2x-2} \right| + 1$$

$$g(x) + x < 0$$

$$\left| \frac{x-1}{2x-2} \right| + 1 + x < 0 \Rightarrow \left| \frac{x-1}{2x-2} \right| < -1-x \Rightarrow \frac{x-1}{2x-2} = -x-1 \Rightarrow x = \pm \sqrt{2} \Rightarrow x = -\sqrt{2}$$



$$\Rightarrow x \in [-\infty, -\sqrt{2})$$

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$$L(x) = (x-2)^3 + 27$$

$$D_g = \{x | x \in D_f \wedge L(x) \times (21 - L(x)) \geq 0\}$$

$$f(x) = \frac{27}{x} (x-2)^3 + 27$$

$$f(x) (21 - f(x)) \geq 0$$

$$L(x) \times (21 - L(x)) \geq 0 \Rightarrow x \in [0, 3] \Rightarrow D_g = [0, 3]$$

$$a \in [0, \frac{1}{2}] \rightarrow \text{عدد صحیح}$$

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