

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

$$y-v = -\frac{1}{3}\left(\frac{3}{5}\right)^2 + \frac{2}{5} \times \frac{3}{5} + 1 = \frac{9}{5} \xrightarrow{\text{انتقال}} \frac{11}{5}$$

$$\Rightarrow y_r = -\frac{1}{3}\left(x - \frac{3}{4}\right)^2 + \frac{2}{5}\left(x - \frac{3}{4}\right) + 1 + \frac{1}{8}$$

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

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

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

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

$$\sqrt{2x+2} + 2 = \frac{1}{x}$$

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

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

$$2x+2 = \frac{(1-2x)^2}{x^2}$$

$$2x = \frac{1}{x}$$

$$x = \frac{1}{2}$$

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

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

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

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$$D_{\mathcal{L}(n-1)} = (\alpha+1, \omega] \cup (-2, \omega)$$

$$D_{\mathcal{G}(n+1)} = [-2, b-1) \Rightarrow a = -3, b = 9$$

$$a-b = -3-9 = -12$$

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$$-3 \leq n \leq \omega$$

$$\Rightarrow -5/\omega \leq \frac{n}{4} + 1 \leq 3/\omega$$

$$\Rightarrow D_{\mathcal{L}} = [-5/\omega, 3/\omega]$$

$$\max(\mathcal{L}(n)) = 2$$

$$\Rightarrow \max(\sqrt{4\mathcal{L}(n)-3}) = 1$$

$$\min(\sqrt{4\mathcal{L}(n)-3}) = 0$$

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

از آنجایی که عبارت زیر رادیکال داخل از

$$D_{\mathcal{L}} = D_{y_r} = [-5/\omega, 3/\omega]$$

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

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

$$\Rightarrow a = -2$$

$$b - a = 1 - (-2) = 3 \quad b = 1 \Rightarrow b \text{ آخر پایه دو است}$$

$$f(x) = \log_2 x$$

$$(1) f(x+2) = \log_2^{x+2}$$

$$(2) f(-x+2) = \log_2^{-x+2}$$

$$(3) f(-x+2) + 3 = \log_2^{-x+2} + 3 = g(x) \quad g(-14) = \log_2^{14} + 3 = 7$$

$$\Rightarrow g(-14) = \log_2^{14} + 3 = 7$$

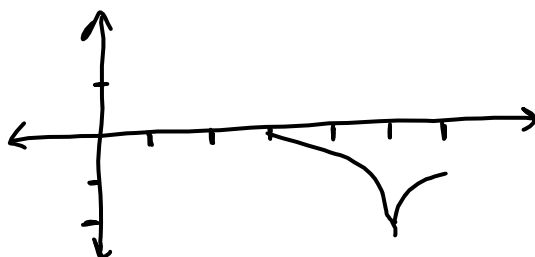
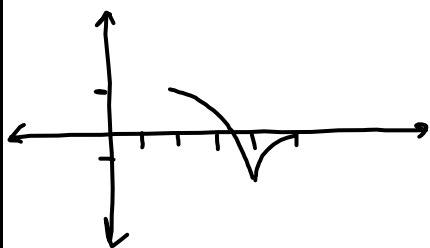
$$g(-42) = \log_2^{42} + 3 = 9$$

$$g(-14) + g(-42)$$

$$= 7 + 9 = 16$$

$$y = f(x)$$

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

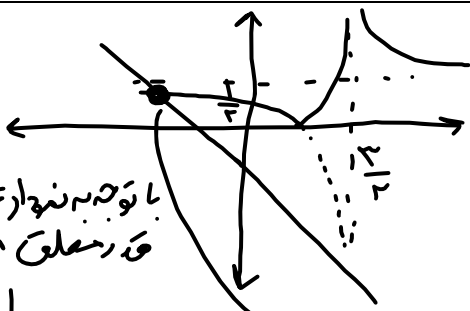


$$g(x) = f(x-2) + 1$$

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

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

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



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

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

$$D_g = \{x \mid x \in D_f \wedge f(x) \times (27 - f(x)) \geq 0\}$$

$$f(x) \times (27 - f(x)) \geq 0 \Rightarrow x \in [0, 3] \Rightarrow D_g = [0, 3]$$