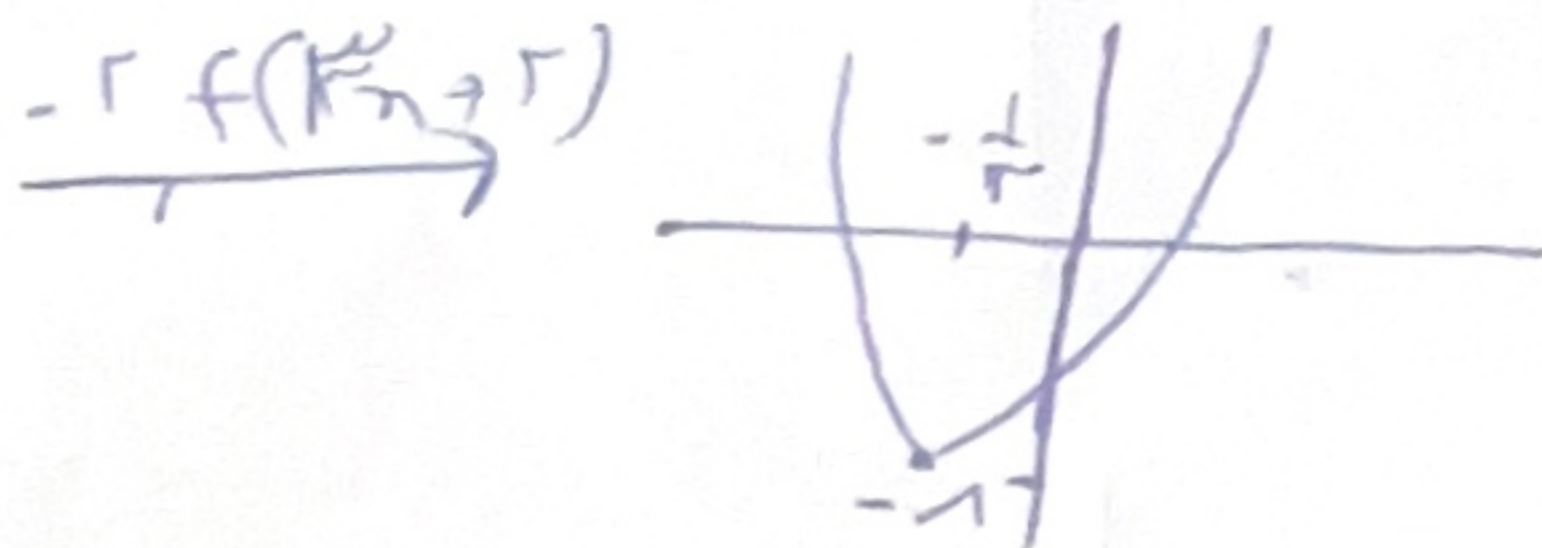
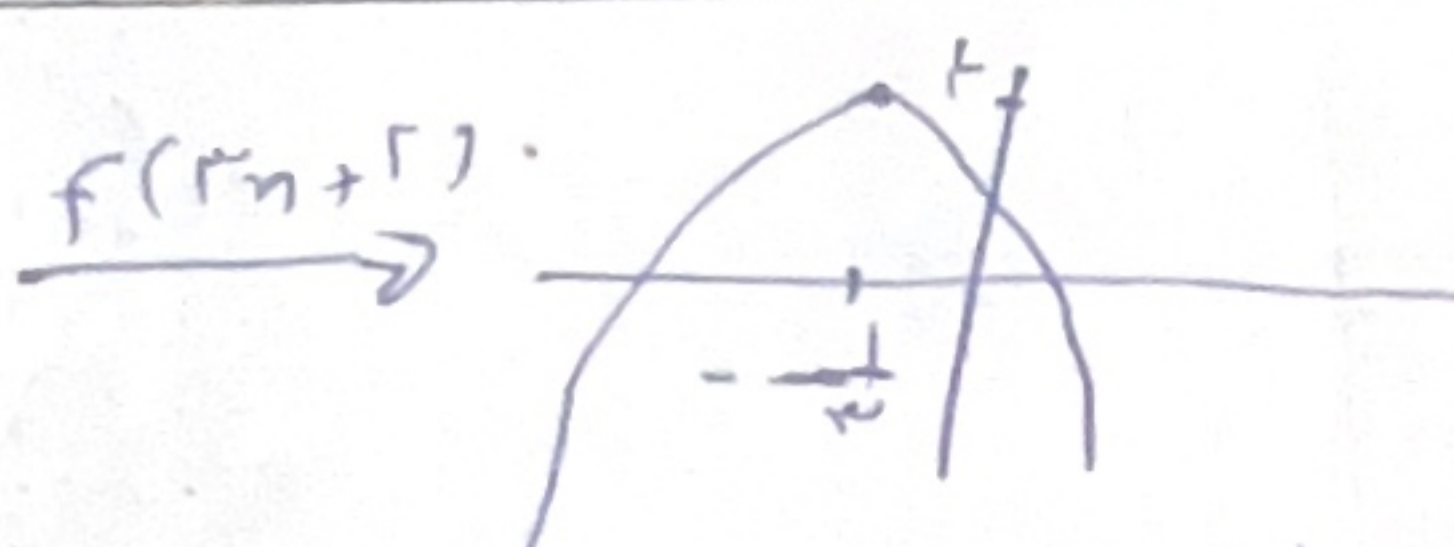
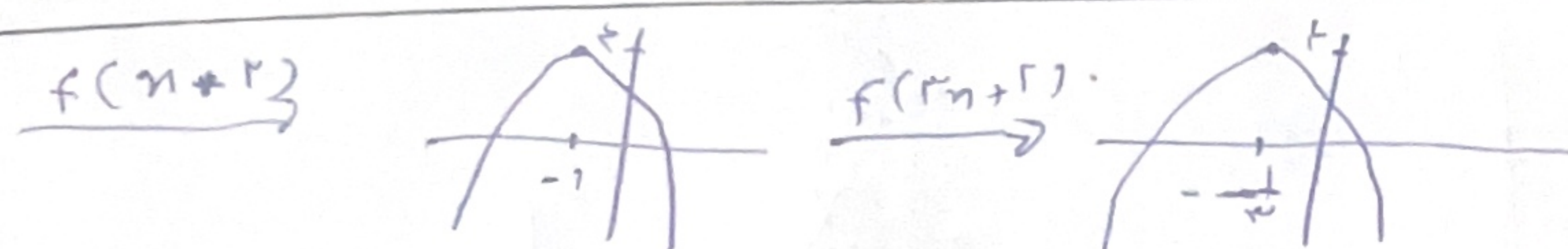


معادله سهمی جدید: $y = -\frac{1}{4}(x-4)^2 + 3$

$\Rightarrow -\frac{1}{4}(x-4)^2 + 3 = 0 \Rightarrow \frac{1}{4}(x-4)^2 = 3 \Rightarrow (x-4)^2 = 12$

$\Rightarrow x-4 = \pm\sqrt{12} \Rightarrow x = 4 \pm 2\sqrt{3}$



$\left. \begin{aligned} \alpha &= -\frac{1}{2} \\ \beta &= -1 \end{aligned} \right\} \alpha\beta = \frac{1}{2}$

$(x-1) \rightarrow y = 3 - \sqrt{2(x-1)}$ $-x \rightarrow y = 3 - \sqrt{-2x-2}$

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

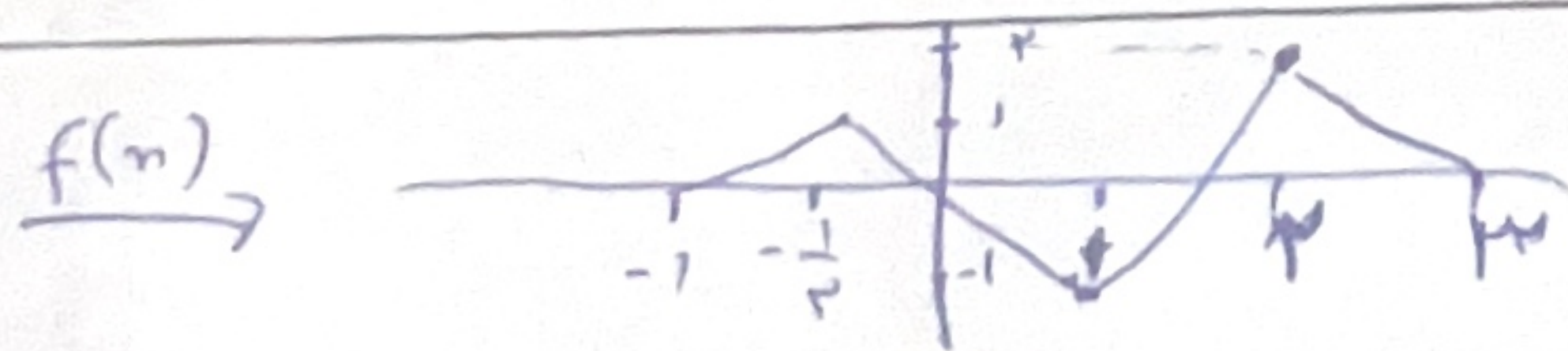
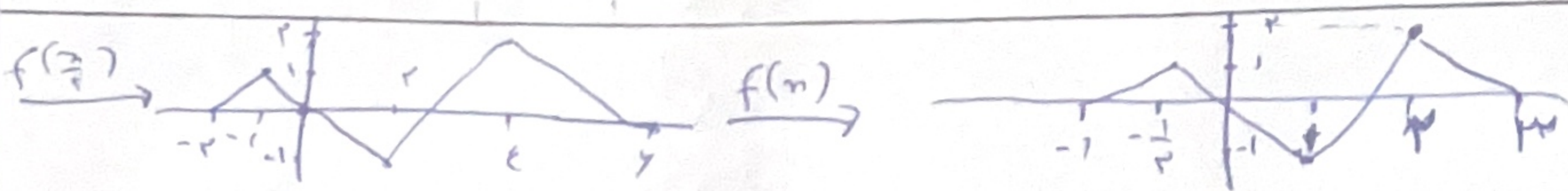
$\Rightarrow -\sqrt{-2x-2} = -\frac{1}{2} \Rightarrow -2x-2 = \frac{1}{4} \Rightarrow -2x = \frac{9}{4} \Rightarrow -1x = \frac{9}{8} \Rightarrow x = -\frac{9}{8}$

$\Rightarrow -1x = \frac{9}{8} \Rightarrow x = -\frac{9}{8}$

$D_f: a < x \leq b \Rightarrow a-1 < x-1 \leq b$

$D_g: -1 \leq x < b \Rightarrow 0 \leq x+1 \leq b+1$

$\left. \begin{aligned} a-1 &= -1 \Rightarrow a = 0 \\ b+1 &= 1 \Rightarrow b = 0 \end{aligned} \right\} a-b = 0$



$R_f: [-1, 2] \Rightarrow R_g = [0, \sqrt{5}]$

$D_f: [-1, 2] \Rightarrow D_g: [-1, 2]$

$$\frac{x}{a} [an] \Rightarrow [an] = 0 \Rightarrow 0 \leq an < 1 \Rightarrow a < 0$$

$$\Rightarrow \frac{1}{a} < n \leq 0 \Rightarrow \text{مثلاً: } +\frac{1}{a} \quad \frac{1}{a}$$

$$\Rightarrow n = -\frac{1}{a} \Rightarrow -\frac{1}{a} [-1] = \frac{1}{a} \quad \frac{1}{a} \quad 0$$

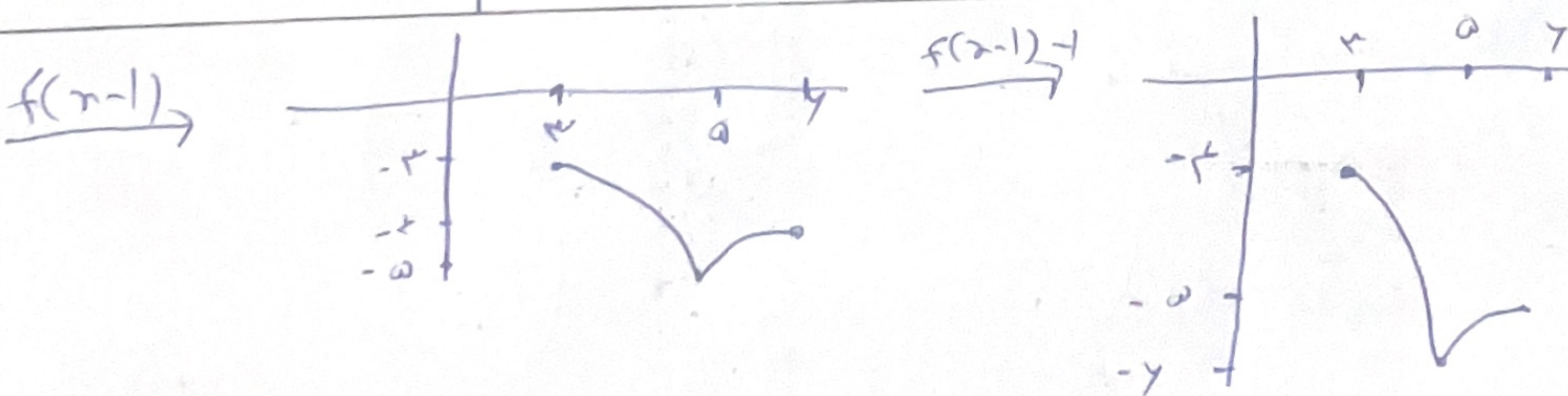
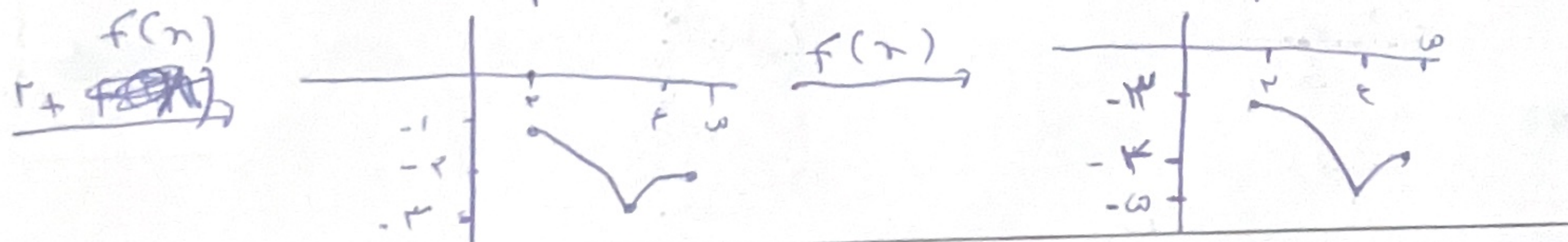
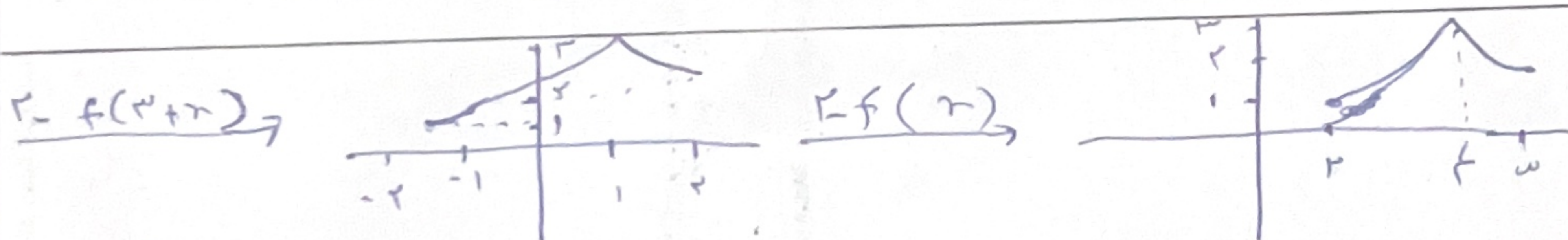
$$\Rightarrow \frac{1}{a^2} = \frac{1}{4} \Rightarrow a = \sqrt{4} = 2 \quad 0 \quad -\frac{1}{a}$$

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

$$\frac{n+r}{2} \rightarrow \log_2^{n+r} \text{ تقریباً } - \log_2^{n+r} \quad \frac{n+r}{2} \rightarrow -\log_2^{n+r} + 3$$

$$\frac{n+r}{2} \rightarrow -\log_2^{n+r} + 3 \Rightarrow g(-14) = -4, g(-12) = -7$$

$$-4 + (-7) = -11$$



$$\left| \frac{x-2+1}{x-2+1} + 1 \right| = g(x) \Rightarrow x + \left| \frac{x-1}{x-2} + 1 \right| < 0$$

$$x + \frac{x-1}{x-2} + 1 \quad x + \frac{x-1}{x-2} + 1 \quad x + \frac{x-1}{x-2} + 1$$

$n > \frac{3}{2}$
 $n < 1$

$$\frac{2n^2 - 3n + n - 1 + 2n - 3}{2n - 3} < 0 \Rightarrow \frac{2n^2 - 3}{2n - 3} < 0$$

$\Rightarrow n \geq -\sqrt{2}$

- | + | - | +
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$n < \frac{3}{2}$

$$\frac{2n^2 - 3n - n + 1 + 2n - 3}{2n - 3} < 0 \Rightarrow \frac{2n^2 - 2n - 2}{2n - 3} < 0$$

$\frac{1 - \sqrt{2}}{2}$ $\frac{3}{2}$ $\frac{1 + \sqrt{2}}{2}$

- | + | - | +
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در این بخش جواب ندارد.

I $\cap$ II : $n \leq -\sqrt{2}$

$$f(n) = \frac{27}{n} n^3$$

$$\Rightarrow \sqrt{28 \times \frac{27}{n} n^3} - \left(\frac{27}{n} n^3\right)^2 = g(n)$$

$$\Rightarrow 28 \times \frac{27}{n} n^3 \geq \left(\frac{27}{n} n^3\right)^2 \Rightarrow 28 \geq \frac{27}{n} n^3$$

$\Rightarrow n^3 \leq \frac{1 \times 28}{27} \Rightarrow n \leq \frac{2 \times \sqrt[3]{21}}{3}$

قابل توجه: حد صحیح است