

نام و نام خانوادگی آریز مهر پاسخنامه تشریحی تکلیف شماره کلاس جزوه هم سیر ۲۰

$$D_{f(n)} = [-2, 4] \rightarrow -2 \leq n \leq 4$$

$$D_{f\left(\frac{3n+2}{5}\right)} \rightarrow -2 \leq \frac{3n+2}{5} \leq 4 \rightarrow -10 \leq 3n+2 \leq 20$$

$$\rightarrow -12 \leq n \leq 6 \rightarrow D_{f\left(\frac{3n+2}{5}\right)} = [-12, 6]$$

$$D = [-2, 3] \xrightarrow{f(3n-2)} -2 \leq n \leq 3 \rightarrow -14 \leq 3n-2 \leq 11$$

$$\rightarrow D_{f(n)} = [-14, 11]$$

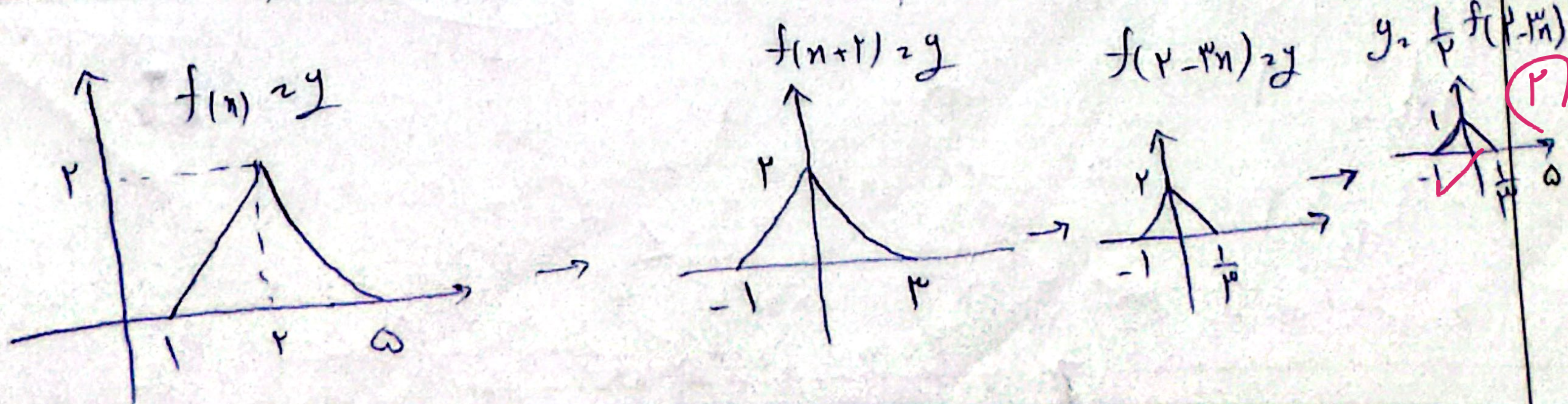
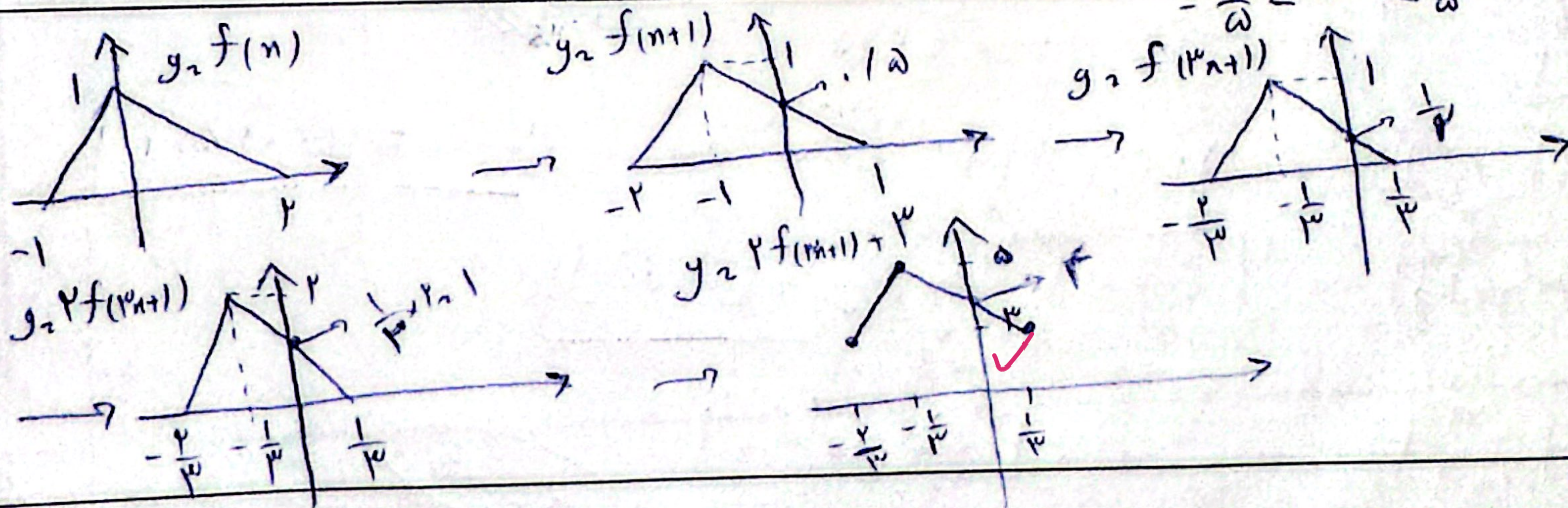
$$f\left(\frac{3n+1}{4}\right) \rightarrow D = [-1, 3] \rightarrow -1 \leq n \leq 3$$

$$\rightarrow -1 \leq \frac{3n+1}{4} \leq 3 \rightarrow D_{f(n)} = [-1, 3]$$

$$D_{f(2-5n)} = \left(-\frac{3}{5}, \frac{3}{5}\right]$$

$$f(2-5n) \rightarrow -1 \leq 2-5n \leq 3$$

$$\rightarrow -3 \leq -5n \leq 1 \rightarrow -\frac{3}{5} \leq n \leq \frac{1}{5}$$



$$y = f(n) = -\frac{1}{\mu} n^p + \frac{\gamma}{\omega} n + 1 \rightarrow \text{ext}_{f(n)} = (\cdot / \gamma, 1 / \mu)$$

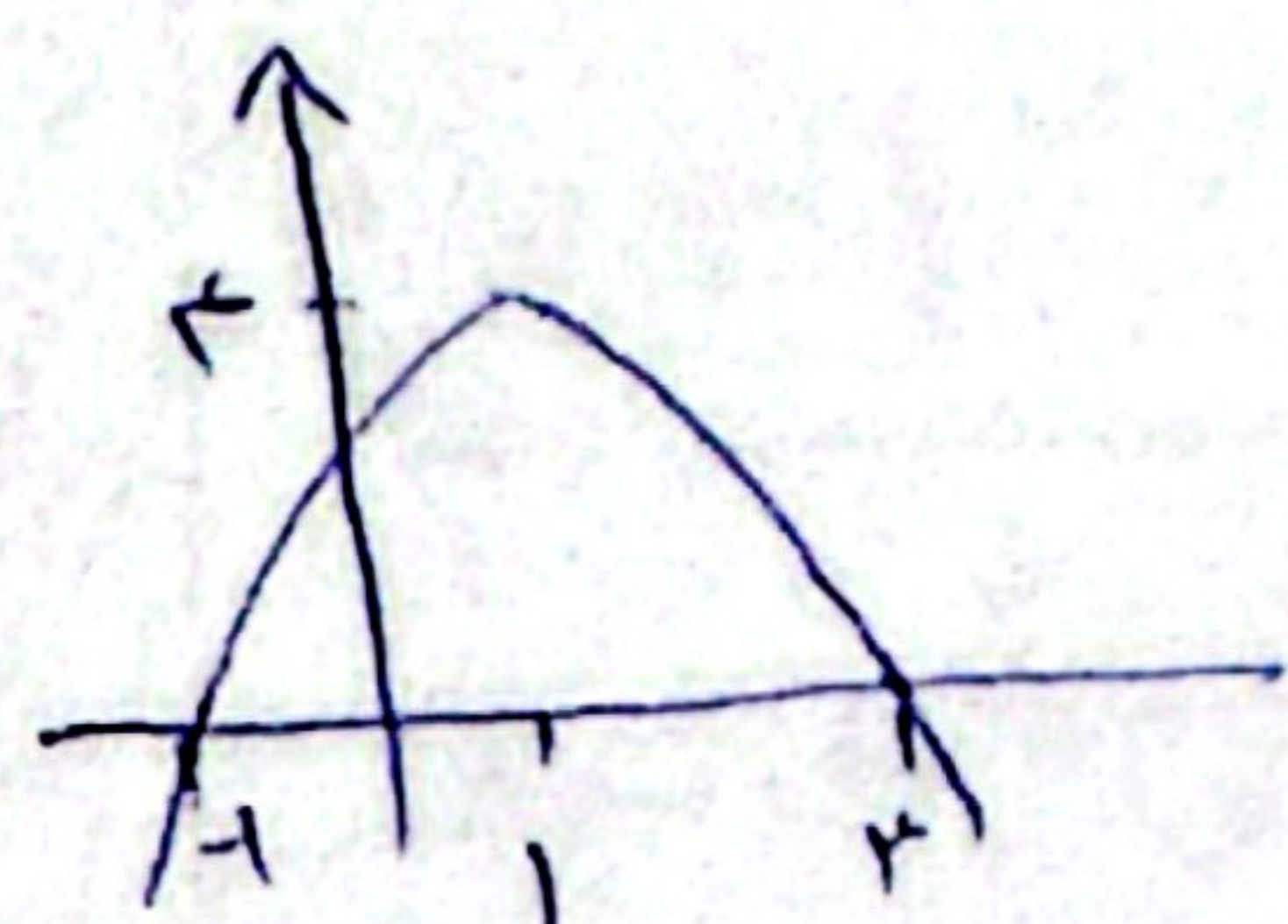
$$\downarrow$$

$$\text{ext}_{g(n)} = (\epsilon, \gamma)$$

$$g(n) = f(n - \gamma / \epsilon) + 1 / \gamma$$

$$g(n) = -\frac{1}{\mu} (n - \epsilon)^p + \mu = 0$$

$$(n - \epsilon)^p = 9 \rightarrow \begin{matrix} n - \epsilon = 9 \rightarrow n = 10 \\ n - \epsilon = -9 \rightarrow n = -8 \end{matrix}$$



$$\text{ext}_{f(n)} = (1, \epsilon) \rightarrow f(1) = \epsilon$$

$$y = 1 - \gamma f(n + \gamma)$$

$$A(\alpha, \beta) \rightarrow \text{ext}$$

$$\gamma n + \gamma = 1 \rightarrow n = \frac{1 - \gamma}{\gamma} = \alpha$$

$$y = 1 - \gamma f(\hat{x}) = 1 - \Lambda = \gamma = \beta$$

$$\alpha \beta = \frac{\gamma}{\mu}$$

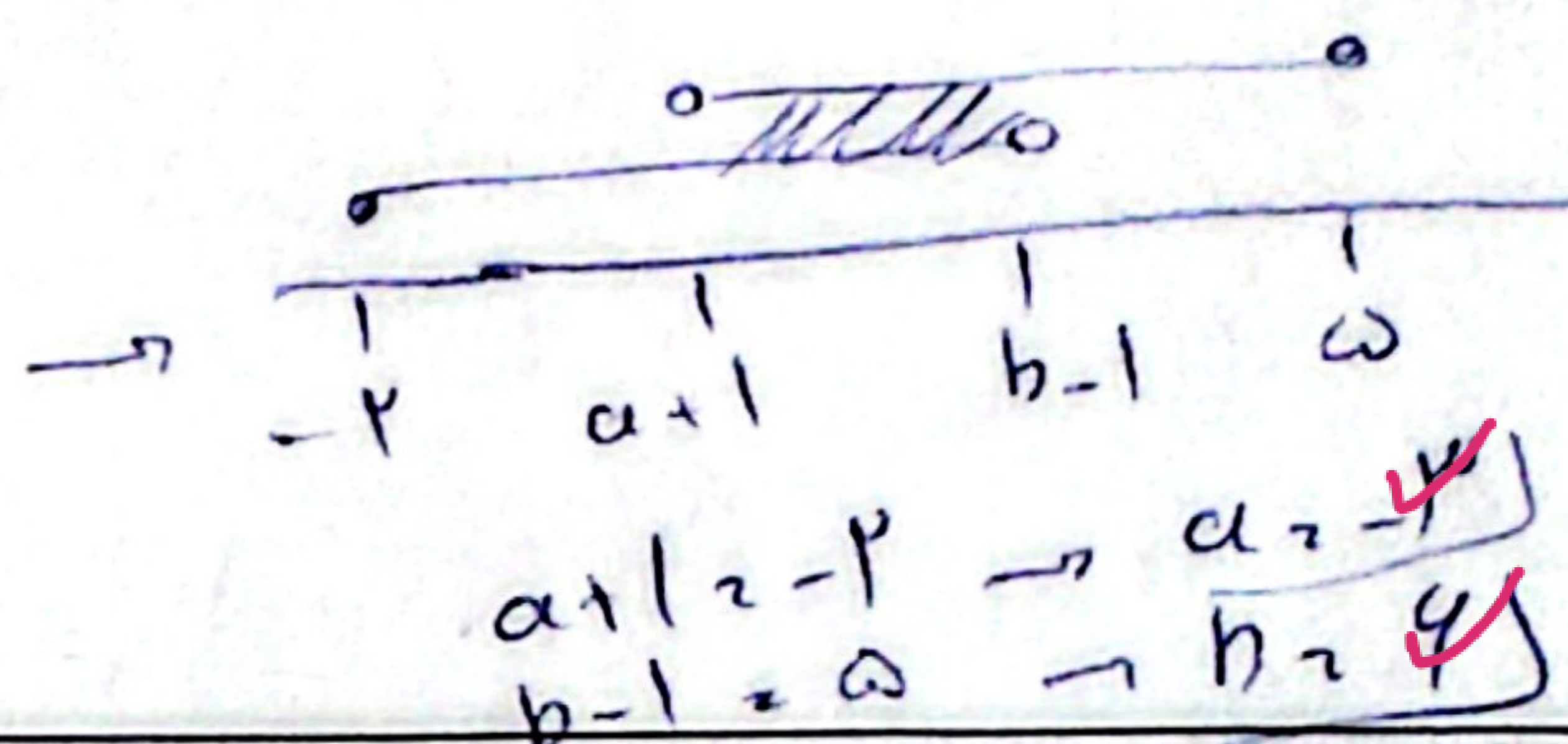
$$D_g = [-1, b)$$

$$D_f = (a, \epsilon]$$

$$y = f(n-1) + g(n+1) \rightarrow D = (-\gamma, \omega)$$

$$D_{f(n)} = (a+1, \omega]$$

$$D_{g(n+1)} = [-\gamma, b-1)$$



$$g_1 = f\left(\frac{n}{\gamma} + 1\right) \rightarrow -\gamma \leq n \leq \omega$$

$$D_f = [-1/\omega, \gamma/\omega]$$

$$-1 \leq f \leq \gamma$$

$$-1/\omega \leq \frac{n}{\gamma} + 1 \leq \gamma/\omega$$

$$g_\gamma = \sqrt{\gamma f(n) - \gamma} \rightarrow |\gamma f(n) - \gamma| \geq 0 \rightarrow \gamma f(n) \geq \gamma \rightarrow D_{g_\gamma} = [-1/\omega, \gamma/\omega]$$

$$y = \sqrt{|[-\omega, 1]|} = \sqrt{[0, \omega]} \Rightarrow R_{g_\gamma} = [0, \sqrt{\omega}]$$

$$f(n) = \left| \frac{n+1}{\gamma n + 1} \right| \rightarrow g(n) = \left| \frac{n-1}{\gamma n - \gamma} \right| + 1$$

$$n+1 + \left| \frac{n-1}{\gamma n - \gamma} \right| < 0$$

$$\left| \frac{n-1}{\gamma n - \gamma} \right| < -n-1$$

! ملاحظه! جواب منفي است!

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$$(n-1)^p < (n+1)^p (\gamma n - \gamma)^p$$

$$0 < \gamma (n^p - \gamma) (n^p - n - 1)$$

$$n < 1 \rightarrow n$$

$$\frac{n-1}{\gamma n - \gamma} + n + 1 < 0 \rightarrow \frac{\gamma n^2 - \gamma}{\gamma n - \gamma} < 0 \rightarrow \frac{-1}{-1} + \frac{1}{1} = 0$$

$$-n-1 < 0 \rightarrow n < -1 \rightarrow \left| \frac{n-1}{\gamma n - \gamma} \right| = \frac{n-1}{\gamma n - \gamma}$$

$$n < -\gamma$$

$$\frac{-\gamma - 1}{\gamma} = \frac{-\gamma - 1}{\gamma} \sqrt{\frac{\gamma}{\gamma}}$$

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