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$$-1 \leq x \leq 1 \Rightarrow -1 \leq \frac{x-1}{2} \leq 1 \Rightarrow -\frac{1}{2} \leq \frac{x-1}{2} \leq \frac{1}{2}$$

$$\Rightarrow P_{\frac{x-1}{2}} = \left[-\frac{1}{2}, \frac{1}{2} \right]$$

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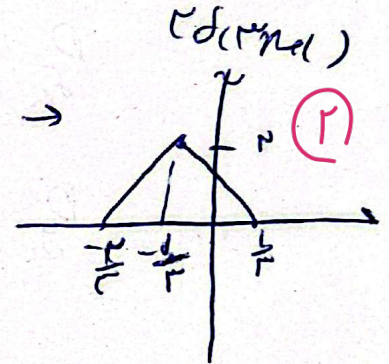
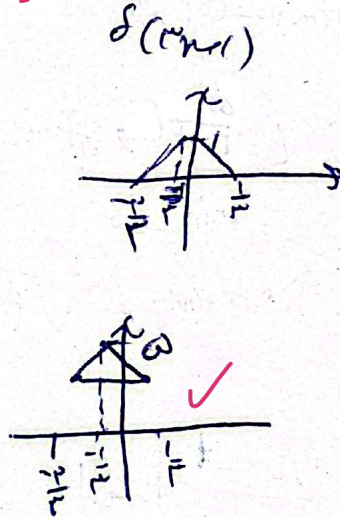
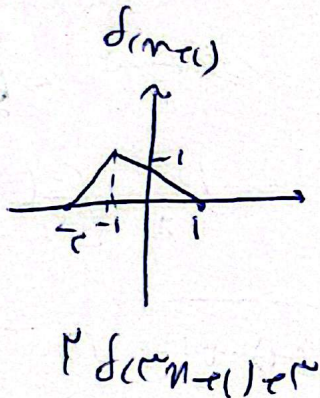
$$-1 \leq x \leq 1 \Rightarrow -1 \leq \frac{x-1}{2} \leq 1 \Rightarrow P_{\frac{x-1}{2}} = [-1, 1] \quad (2)$$

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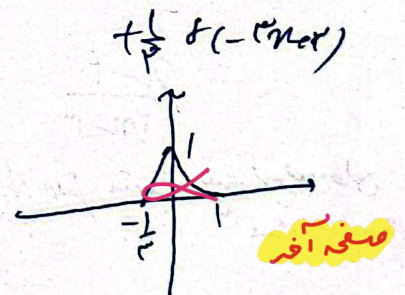
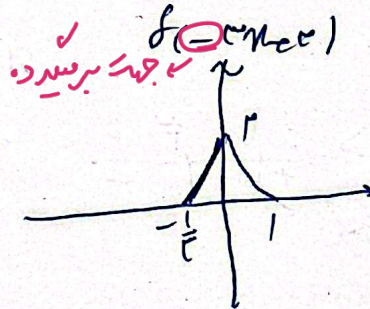
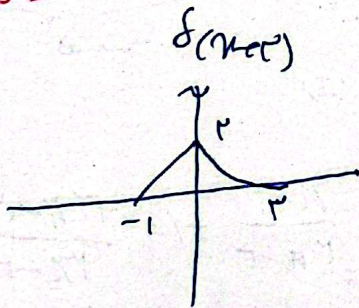
$$-1 \leq x \leq 1 \Rightarrow -1 \leq \frac{x-1}{2} \leq 1 \Rightarrow P_{\frac{x-1}{2}} = [-1, 1] \quad (1, 1.5)$$

$$-1 \leq 1-4x \leq 1 \Rightarrow -3 \leq -4x \leq 1 \Rightarrow P_{-4x} = \left[-\frac{3}{4}, \frac{1}{4} \right]$$

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$$P_{\frac{x-1}{2}} = \left\{ \frac{3}{2}, \frac{11}{2} \right\}$$

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

$$\frac{11}{2} + y = 1 \Rightarrow y = -\frac{9}{2}$$

$$-\frac{1}{3} \left(1 - \frac{1}{2} \right) = \frac{1}{6} \left(1 - \frac{1}{2} \right) = \frac{1}{12} \Rightarrow \begin{cases} x_1 \leq 1 \\ x_2 \leq 1 \end{cases}$$

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رنگ شوشن

$$\checkmark - (n+1) \leq n \checkmark$$

$$\lfloor \frac{n}{2} \rfloor \leq \beta \leq \frac{n}{2} \quad (r)$$

$$a\beta \leq \frac{n}{2} \checkmark$$

$$1- \quad D_{f(n)} = (a+1, a) \quad D_{f(n+1)} = [-5, b-1] \quad (r)$$

$$(a+1, a) \cap [-5, b-1] = (c, d) \begin{cases} a+1 \leq c \Rightarrow a \leq -1 \\ b-1 \geq d \Rightarrow b \geq 1 \end{cases}$$

$$\textcircled{a-b \leq 0} \checkmark$$

$$4- \quad |f(n) - c| \geq 1 \Rightarrow \text{فصلی است} \Rightarrow D_c = D_{f(n)} \quad (r)$$

$$D_{f(n)} = \left[\frac{1}{f-1}, \frac{1}{f} - a \right] \Rightarrow D_{f(n)} = \left[-\frac{1}{f}, \frac{1}{f} \right] \checkmark$$

$$D_{g_c} \begin{cases} \min \leq a \\ \max \leq \sqrt{|f(n-1) - c|} = \sqrt{a} \end{cases} \Rightarrow D_c = [0, \sqrt{a}] \checkmark$$

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

$$n+1 + \left| \frac{n-1}{n-2} \right| < - \quad (r)$$

فصلی است

$$\frac{n-1}{n-2} \Rightarrow \frac{1}{1 - \frac{1}{n}} + 1$$

کمتر از صفر نیست پس از صفر بزرگتر است

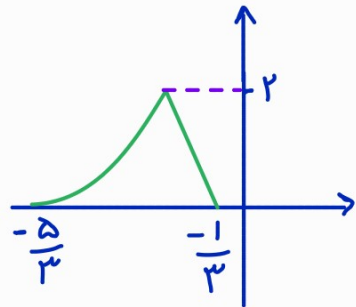
$$\frac{n-1}{n-2} + 1 \leq \frac{n(n-1)}{n-2}$$

$$\frac{n(n-1)}{n-2} + n < \dots \rightarrow n(n-1) > \dots$$

$$\begin{cases} n > \sqrt{n-2} - 500 \\ n < -\sqrt{n} \\ n < -\sqrt{n} \end{cases} \checkmark$$

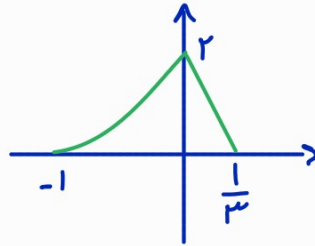
$$D_f = [-r, r] \rightarrow -r \leq \frac{r_n + r}{\omega} \leq r \rightarrow -\omega \leq r_n + r \leq \omega \rightarrow -r \leq r_n \leq \omega - r$$

$$D_g = [-r, \omega]$$



$$y = f(-r_n)$$

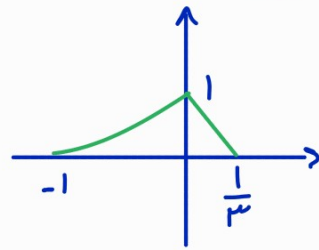
واعد به راست $\frac{r}{\omega}$



$$y = f(-r(n - \frac{r}{\omega}))$$

$$y = f(r - r_n)$$

→



$$y = \frac{1}{r} f(r - r_n)$$