

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره ۷ کلاس نام و نام خانوادگی

$$-2 \leq \frac{r_{m+1}}{\omega} \leq 2 \Rightarrow -10 \leq r_{m+1} \leq 20$$

$$-12 \leq r_m \leq 12 \quad -4 \leq m \leq 4 \Rightarrow D \in [-4, 4]$$

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$$-2 \leq m \leq 2 \quad -4 \leq r_m \leq 4 \quad -1 \leq r_m - 2 \leq 1$$

$$D_f = [-1, 1]$$

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~~$$-1 \leq m \leq 2$$~~
$$-1 \leq m \leq 2 \quad -\frac{2}{2} \leq \frac{r_{m+1}}{2} \leq \frac{10}{2}$$

$$-1 \leq \frac{r_{m+1}}{2} < \omega \Rightarrow -1 \leq 2 - \omega m \leq \omega \quad -2 \leq -\omega m \leq 2$$

$$-\frac{2}{\omega} < m \leq \frac{2}{\omega} \quad m \in \left(-\frac{2}{\omega}, \frac{2}{\omega}\right]$$

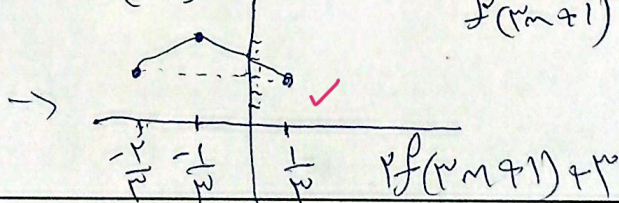
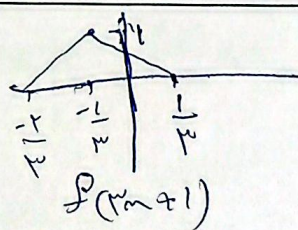
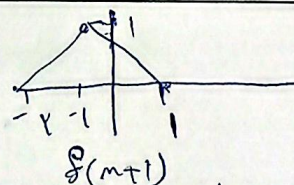
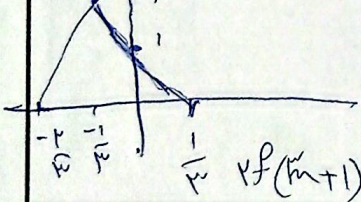
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$$r_{m+1} = 2 \Rightarrow \frac{1}{2}$$

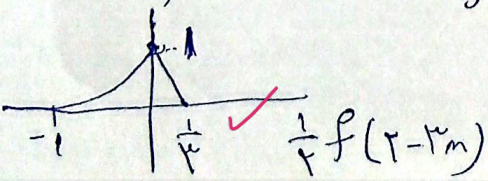
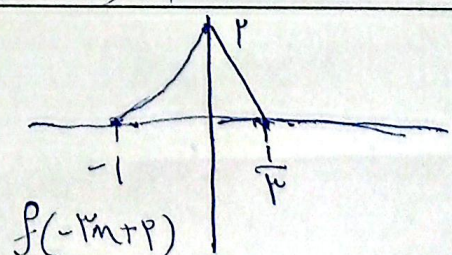
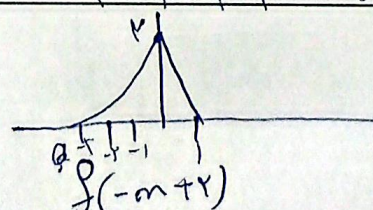
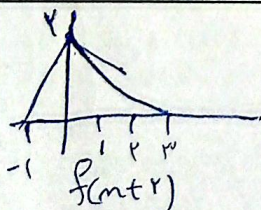
$$r_{m+1} = 0 \Rightarrow \frac{1}{2}$$

$$r_{m+1} = -1 \Rightarrow -\frac{1}{2}$$



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$$\frac{1}{3} = \left(\frac{1}{3} \right) \quad -\frac{1}{x} (m-2)^2 + 3 \Rightarrow 0 \sim m \in \mathbb{R} \setminus \{0\}$$

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$$(1, 2) \rightarrow$$

نکته: سستی اولی

$$x_m + x = 1 \sim -\frac{1}{x} \leq \alpha$$

$$1 - x(2) = \beta \Rightarrow \checkmark$$

$$\rightarrow (\alpha, \beta) = \left(-\frac{1}{x}, -2 \right) \rightarrow \alpha \beta = \frac{2}{x}$$

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$$D_{f(m)} = (a+1, a]$$

$$D_{g(m+1)} = [-2, b-1)$$

$$b-1 = a \quad b = \checkmark \quad a+1 = -2 \Rightarrow a = -3$$

$$a-b = -3 - \checkmark = -4$$

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داده: $f: \mathbb{R} \rightarrow \mathbb{R}$ و $g: \mathbb{R} \rightarrow \mathbb{R}$ به گونه‌ای که $f(x) = x^2 - 3x + 2$ و $g(x) = x^2 - 4x + 3$ باشد.

$$-3 \leq m \leq a \quad -\frac{3}{4} \leq \frac{m}{4} \leq \frac{a}{4} \Rightarrow -\frac{1}{4} \leq \frac{m}{4} + 1 \leq \frac{a}{4}$$

$$\Rightarrow D_{f(m)} = \left[-\frac{1}{4}, \frac{a}{4} \right] \quad | \quad R_{f(m)} = [-1, 2] \Rightarrow \left[2[-1, 2] - 3 \right]$$

$$[-a, 1] \Rightarrow R_{g_r} = [a, a] \rightarrow R_{g_r} = [0, 5]$$

صفتی آفر

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

$$\left| \frac{m-1}{2m-3} \right| + 1$$

$$m < -\sqrt{2}$$

$$m+1 + \left| \frac{m-1}{2m-3} \right| < 0$$

$$0 < \left| \frac{m-1}{2m-3} \right| < m-1$$

$$\frac{m}{2} < -1$$

$$m < -1$$

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

$$\frac{2m^2 - 3}{2m-3} < 0$$

$$\frac{(m-\sqrt{2})(m+\sqrt{2})}{2m-3} < 0$$

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مشتق

$$D_{y_1} = [-r, \Delta] \rightarrow -r \leq x \leq \Delta \rightarrow \frac{-1}{r} \leq \frac{x}{r} + 1 \leq \frac{\Delta}{r} \Rightarrow D_f = \left[-\frac{1}{r}, \frac{\Delta}{r}\right]$$

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$$R_{y_1} = [-1, r] \rightarrow -1 \leq f \leq r \rightarrow -\Delta \leq rf - r \leq 1 \rightarrow 0 \leq |rf - r| \leq \Delta$$

$$0 \leq \sqrt{|rf - r|} \leq \sqrt{\Delta} \Rightarrow R_f = [0, \sqrt{\Delta}]$$