

تکالیف ۱۳ کلاسش تحقیق  
 > دوازدهم پسر B

۱- (۲)

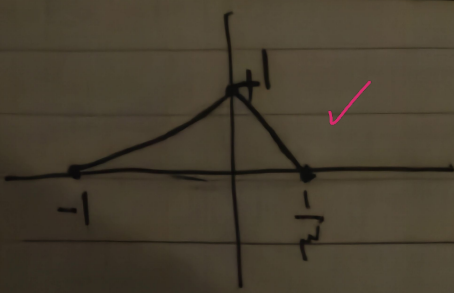
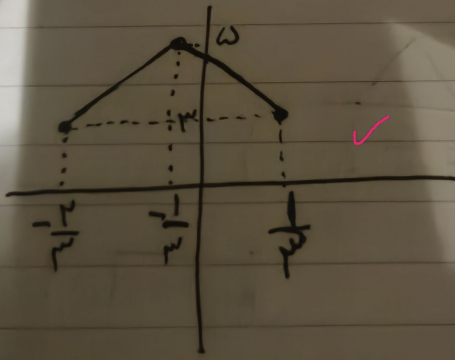
$$\left. \begin{array}{l} -2 \xrightarrow{\times 5} -10 \xrightarrow{-2} -12 \xrightarrow{+3} -9 \\ 4 \xrightarrow{\times 5} 20 \xrightarrow{-2} 18 \xrightarrow{+3} 21 \end{array} \right\} \rightarrow P = [-9, 21]$$

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$$\left. \begin{array}{l} -2 \xrightarrow{\times 3} -6 \xrightarrow{-2} -8 \\ 3 \xrightarrow{\times 3} 9 \xrightarrow{-2} 7 \end{array} \right\} \rightarrow P = [-8, 7]$$

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$$\left. \begin{array}{l} -1 \xrightarrow{\times 3} -3 \xrightarrow{+1} -2 \xrightarrow{\div 2} -1 \xrightarrow{-2} -3 \xrightarrow{\div 5} -\frac{3}{5} \\ 3 \xrightarrow{\times 3} 9 \xrightarrow{+1} 10 \xrightarrow{\div 2} 5 \xrightarrow{-2} 3 \xrightarrow{\div 5} \frac{3}{5} \end{array} \right\} \rightarrow P = \left[-\frac{3}{5}, \frac{3}{5}\right]$$



$$x_s = -\frac{b}{r_2} \rightarrow x_s = -\frac{-\frac{1}{5}}{-\frac{1}{5}} = -\frac{1}{5}$$

$$y_s = -\frac{A}{r_2} \rightarrow y_s = -\frac{\frac{11}{5} - f(\frac{1}{5})(1)}{-\frac{1}{5}} = -\frac{\frac{11}{5} - \frac{11^2 + 100}{\sqrt{5}}}{-\frac{1}{5}} = \frac{11^2}{100} = \frac{121}{100} \quad \text{صفحه ۵}$$

$f(x) \rightarrow$



صفحه ۳

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$$(a+1, b-1) = (-2, 5) \rightarrow$$

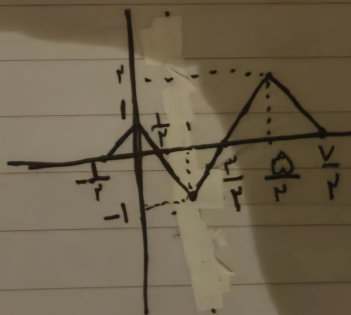
$$\begin{cases} b=4 \\ a=-3 \end{cases}$$

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(۲)

$$f(3)(4) = -1$$

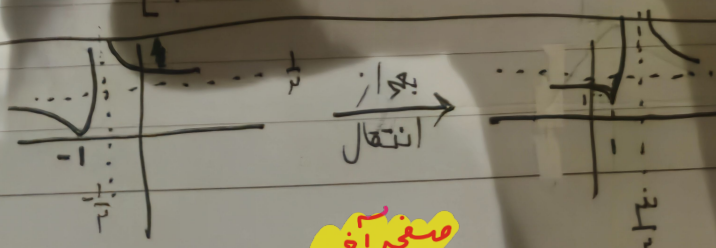
$y = f(x)$



(۱) ۹-

$$\sqrt{12f(x)-3} = |2f(x)-3|$$

$$D = \left[-\frac{1}{2}, \frac{5}{2}\right] \leftarrow \text{دامنه تغییر نمی کند فقط بازه تغییر می کند}$$



انتقال

صفحه ۳

۰-۱۵

رأس:  $(h, k) \xrightarrow{\text{معادله خط}} y = a(n-h)^2 + k = -\frac{1}{4}n^2 + \frac{1}{2}n + 1 \rightarrow a = -\frac{1}{4}$  -9

رأس:  $(4, 3) \rightarrow y = -\frac{1}{4}(n-4)^2 + 3 \xrightarrow{y=0} -\frac{1}{4}(n-4)^2 = -3 \rightarrow \begin{cases} n=7 \\ n=1 \end{cases}$

رأس  $\left| \begin{matrix} 1 \\ 4 \end{matrix} \right| \Rightarrow \begin{cases} 2n+2=1 \rightarrow n=-\frac{1}{2} \Rightarrow \alpha = -\frac{1}{2} \\ y=1-2f(1)=1-2(1)=-1 \Rightarrow \beta=-1 \end{cases} \Rightarrow \alpha\beta = \boxed{\frac{1}{2}}$  -v

$D_{y_1} = [-3, 5] \rightarrow -3 \leq n \leq 5 \rightarrow -\frac{1}{2} \leq \frac{n}{2} + 1 \leq \frac{1}{2} \Rightarrow D_f = \left[-\frac{1}{2}, \frac{1}{2}\right]$  -9

$R_{y_1} = [-1, 2] \rightarrow -1 \leq f \leq 2 \rightarrow -5 \leq 2f-3 \leq 1 \rightarrow 0 \leq |2f-3| \leq 5$

$0 \leq \sqrt{|2f-3|} \leq \sqrt{5} \Rightarrow R_f = [0, \sqrt{5}]$

$g(n) = \left| \frac{(n-2)+1}{2(n-2)+1} \right| + 1 = \left| \frac{n-1}{2n-3} \right| + 1$  -10

$n + g(n) < 0 \rightarrow \left| \frac{n-1}{2n-3} \right| < -1-n$  از به قدر مطلق بزرگتر شده پس باید مثبت باشد:  $-1-n > 0 \rightarrow n < -1$

$\xrightarrow{n < -1} \frac{n-1}{2n-3} < -1-n \rightarrow \frac{2n^2-4}{2n-3} < 0 \rightarrow \frac{2(n-\sqrt{2})(n+\sqrt{2})}{2n-3} < 0$

$\xrightarrow{n < -1} n < -\sqrt{2} \rightarrow (-\infty, -\sqrt{2})$