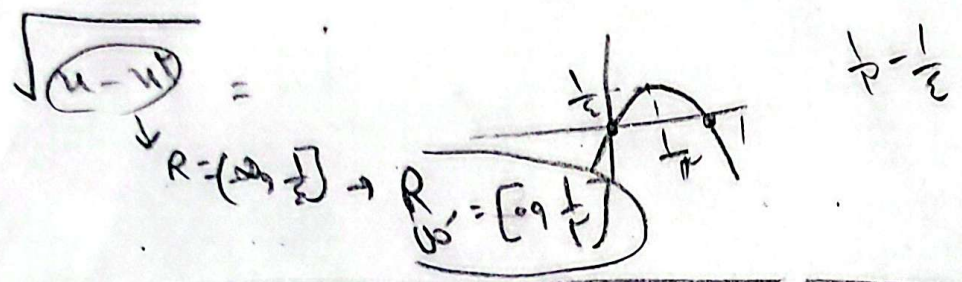


① $f(x) = ax + b \rightarrow f(x+1) + f(x+2) = 3x + f(2)$
 $= (ax + a + b) + (ax + 2a + b) = 3x + 3a + 2b$
 $a(x+1) + b = 3x \rightarrow b = 0, a = 1 \rightarrow f(x) = x$



② $\frac{x(x-2)(x+2)}{x+2} \xrightarrow{x \neq -2} x(x-2) \rightarrow R = [\frac{1}{2}, +\infty) \rightarrow L = \frac{1}{2}$
 $f(\frac{1}{2}) = f(-\frac{1}{2}) \rightarrow -\frac{1}{2}(-\frac{1}{2}-2) = \frac{3}{4}$
 $(a,b) = (\frac{1}{2}, \frac{3}{4})$

این مجموعه ها از این طرف
 شود بیا هر ۲ معادله را بنویسیم برای
 آن ها (در صورتی که ...)

③ $g = \text{خطی} \rightarrow \text{مشتق} = \text{مشتق} \rightarrow \sqrt{(x-2)^3} = \sqrt{x^3 - 6x^2 + 12x - 8}$
 $a = -4, b = 12$
 $D_f = [-4, 12] \rightarrow R_f = [-1, 10]$
 $f(x) = x-2 \rightarrow R_f = [-1, 10]$

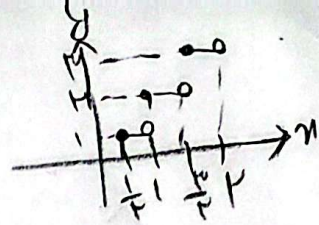
④ $\left(\frac{x+1}{1-x}\right) \geq 0 \rightarrow \frac{-1}{-1+x} = \frac{1}{1-x}$
 $R_{\text{دوم}} \rightarrow \begin{cases} \max \square = +\infty \rightarrow a \\ \min \square = 0 \rightarrow \frac{1}{b} \end{cases} \rightarrow \left[\frac{1}{b}, a\right]$
 $b=1, a=1 \rightarrow a+b=2$

⑤ $-1 < x < 0 \rightarrow -\frac{1}{x} - 1$
 $0 < x < 1 \rightarrow \frac{0}{x} + 1$
 $x=1 \rightarrow 2$

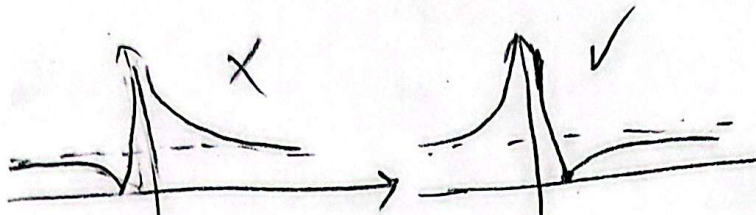
$$n + \frac{1}{p} = k \rightarrow n = k - \frac{1}{p}$$

$$n = k$$

$$\left. \begin{array}{l} \frac{1}{p} \leq n < 1 \rightarrow 0 + 1 = 1 \\ 1 \leq n < \frac{3}{p} \rightarrow 1 + 1 = 2 \\ \frac{3}{p} \leq n < 1 \rightarrow 2 + 1 = 3 \end{array} \right\} \text{بیا، بیا}$$

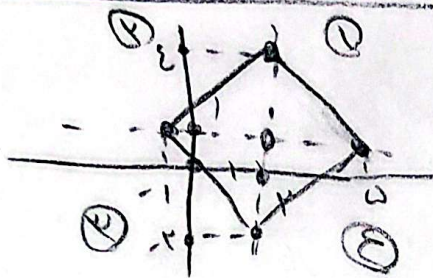


⑥



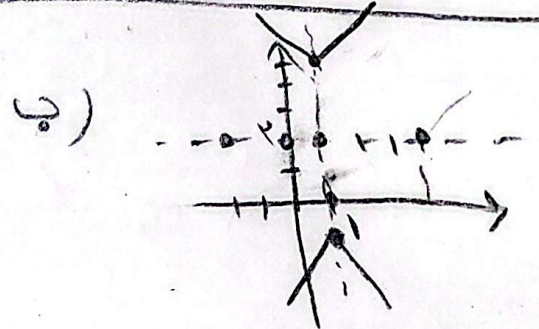
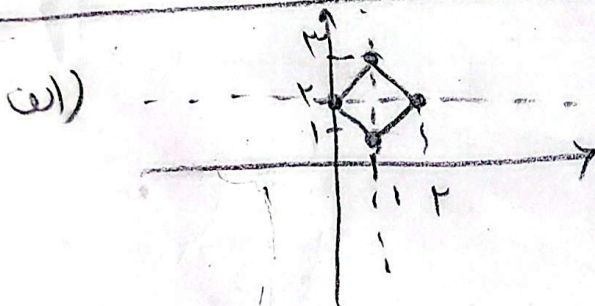
$$f(\infty) > 1 \quad \times$$

$$f(\infty) < 1 \quad \checkmark \rightarrow \frac{a}{c} = 1 \rightarrow \frac{1}{a} = 1 \rightarrow a = 1$$



① با این بین معده می بیند که در این صورت

$$\begin{array}{ll} ① \rightarrow n \geq 2 & y \geq 1 \rightarrow y = 2 - n \\ ② \rightarrow n < 2 & y \geq 1 \rightarrow y = n + 2 \\ ③ \rightarrow n < 2 & y < 1 \rightarrow y = -n \\ ④ \rightarrow n \geq 2 & y < 1 \rightarrow y = n - 2 \end{array}$$



نقاط را از روی محور رسم کنید و خارج از آن رسم کنید و بین این نقاط ها مستقیم بکشید

$$an + b > 0 \rightarrow k + an + b = y \rightarrow y = (k+a)n + b$$

$$an + b < 0 \rightarrow k - an + b = y \rightarrow y = (k-a)n + b$$

$$\rightarrow f(-\frac{b}{a}) = f(-\frac{b}{a})$$

$$(k+a)(k-a) > 0 \quad -3 \leq a \leq 3$$

$$(k+a)(-\frac{b}{a}) + b = (k-a)(-\frac{b}{a}) - b$$

$$-\frac{3b}{a} - b = -\frac{3b}{a} + b \rightarrow \text{همه چیز مساوی است}$$

نمودار اصلی تکلیف د