

تقاطع توابع زوجی برعکس هسند $a < 0$

$$f(-\frac{1}{a}) = -\frac{1}{a^2} [-1] = \frac{1}{a} \rightarrow a^2 = 1 \rightarrow a = -1$$

$$b < 1 \rightarrow b - a < 2$$

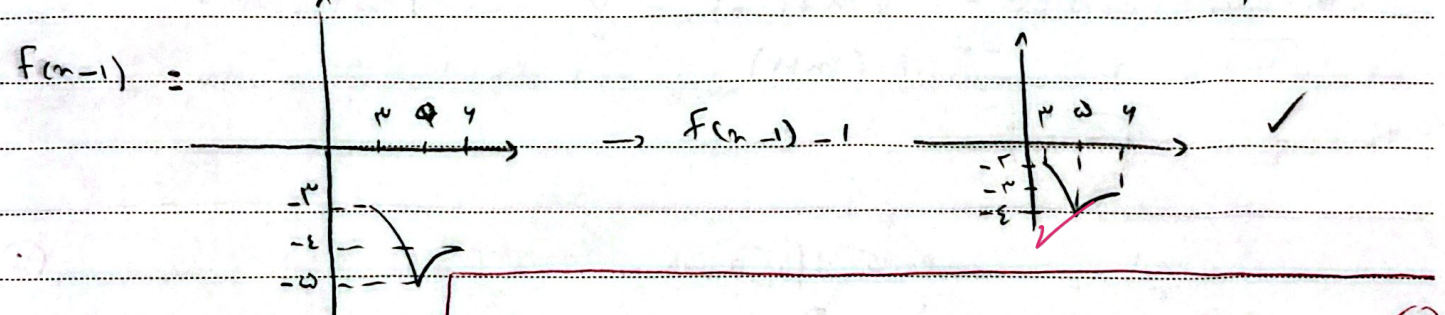
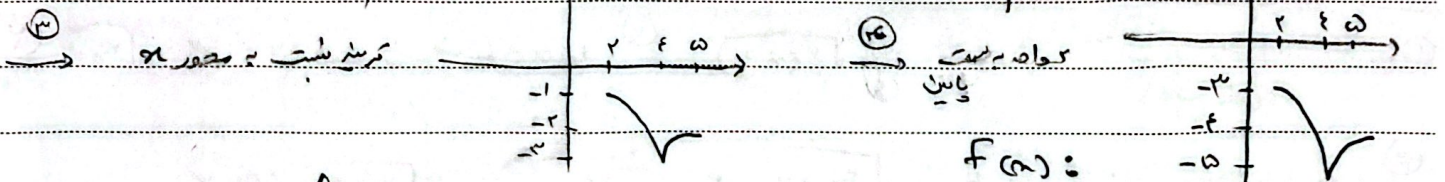
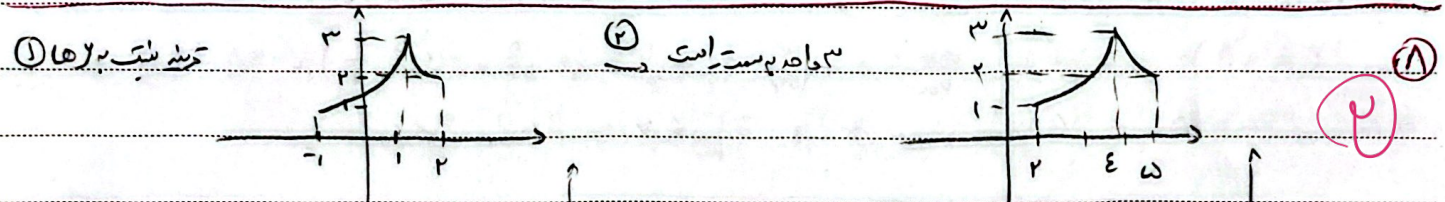
① $f(x) = \log_2 x^{x+2}$ $\rightarrow$ ترکیب نسبت به معکوس $f(x) = -\log_2 x^{x+2}$ ⑦

③ $\rightarrow$ مشتق $\rightarrow$ $f(x) = -\log_2 x^{x+2} + 3$ $\rightarrow$ ترکیب نسبت به معکوس $g(x) = -\log_2 x^{x+2} + 3$ ⑤

$$\rightarrow g(-14) = -\log_2 14^{14+2} + 3 = -\log_2 14^{16} + 3 = -16 + 3 = -13$$

$$g(-42) = -\log_2 42^{42+2} + 3 = -\log_2 42^{44} + 3 = -44 + 3 = -41$$

$\rightarrow$ $\{-13, -41\} \rightarrow (-41, -13)$ ✓



① $\rightarrow$ $f(x) = \frac{(x-2)+1}{2(x-2)+1} = \frac{x-1}{2x-3}$ ② $\rightarrow$ $f(x) = \frac{(x-2)+1}{2(x-2)+1} = \frac{x-1}{2x-3}$ ③

$\rightarrow g(x) = \frac{x-1}{2x-3} + 1 \rightarrow x + \frac{x-1}{2x-3} + 1 < 0$ ④ $\rightarrow$ $x + \frac{x-1}{2x-3} + 1 < 0$ ⑤

$$\rightarrow x + 1 + \frac{x-1}{2x-3} < 0 \rightarrow \frac{x+1}{2x-3} < 0 \rightarrow x+1 < \frac{x-1}{2x-3}$$

① $(-\infty, 1] \cup (\frac{3}{2}, +\infty)$ $\rightarrow$ $(-\infty, -\sqrt{2}) \cup (\sqrt{2}, \frac{3}{2})$ ② $\rightarrow$ $(1, \frac{3}{2})$ ③

$(-\infty, 1 - \frac{1}{\sqrt{2}}) \cup (\frac{3}{2}, \frac{1+\sqrt{2}}{2})$ ④ $\rightarrow$ $(-\infty, -\sqrt{2})$ ✓

$$f(n) = 1 + (n-2)^2 + 2n \xrightarrow{(\cdot, \cdot)} 1 + \frac{2n}{n}$$

$$\cdot \leq f(n) \leq n \rightarrow f(n) = 0 \rightarrow n = 0$$

$$f(n) = n \rightarrow n = \frac{1}{e}$$

$$\rightarrow \cdot \leq n \leq \frac{n}{e} \text{ (محدود)}$$

Year..... Month..... Day.....

Subject:

$$-f(n)(f(n)-2n) \geq 0$$

بافتی به شکل $\frac{0}{-1+1-}$

(10) كخ

$$\begin{array}{c} 0 \quad 2n \\ - \quad 1 + 1 - \end{array}$$

$$\rightarrow Df = [0, 2n]$$

✓ $\text{Coul} \in \mathbb{R}^n$ $\text{de } \mathbb{C}^n$