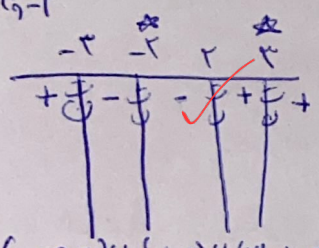


الف) $\sqrt{\frac{n^2-n-4}{n^2-12n^2+14}}$ نکته: $(n-r)(n+r) \rightarrow n^2-r^2$ سوال 4

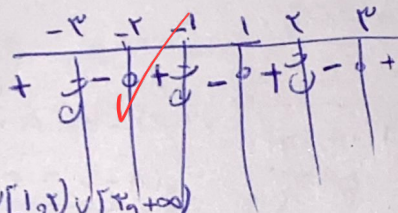
$t = n^2$ $t = 9, t = 25$ $n = \pm 3, \pm 5$

$t = 9, t = 25$ $n = \pm 3, \pm 5$



ب) $\sqrt{\frac{n^2-2n^2-2n+4}{n^2+2n^2-2n-4}}$

$\frac{(n-1)(n-2)(n+2)}{(n+1)(n+2)(n-2)} \geq 0$



$D_f = (-\infty, -2) \cup [-1, 1] \cup [2, +\infty)$

الف) $[-n]-2 \geq 0 \rightarrow [n] \geq 2$

ب) $\frac{2n^2+7}{[n]^2-1[n]-2} =$

$([n]-1)-2 \neq 0 \rightarrow [n] \neq 3$

$[n]-1 \neq 2 \rightarrow [n] \neq 3$
 $[n]-1 = 2 \rightarrow [n] = 3$
 $[n] \neq 3$

$D_f = (-\infty, -1) \cup (0, 2) \cup [3, +\infty)$

الف) $y = \frac{\cos t + 1}{\tan t + 1} \rightarrow \frac{\frac{\cos t}{\sin t} + 1}{\frac{\sin t}{\cos t} + 1}$

$\cos t \neq 0$
 $\cos t \neq kn + \frac{\pi}{2}$

$\sin t \neq 0$
 $\sin t \neq kn$
 $\tan t + 1 \neq 0$
 $\tan t \neq -1$
 $\tan t \neq kn - \frac{\pi}{4}$

$D_f = \mathbb{R} \setminus \{kn, kn + \frac{\pi}{2}, kn - \frac{\pi}{4}\}$

$\frac{\sin t}{\cos t} \in \mathbb{W}$

$\sin t = 0 \rightarrow kn$
 $\cos t = 0 \rightarrow kn + \frac{\pi}{2}$
 $\tan t = -1 \rightarrow kn - \frac{\pi}{4}$

مقران A

تکلیف ۲

در مسائل

سوال ۸ (ب)

$$1 - f \sin^2 \alpha$$

$$1 - f \sin^2 \alpha \geq 0$$

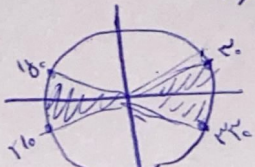
$$1 \geq f \sin^2 \alpha$$

$$\frac{1}{f} \geq \sin^2 \alpha$$

$$|\sin \alpha| \leq \frac{1}{\sqrt{f}}$$

$$\sin \alpha \in \left[-\frac{1}{\sqrt{f}}, \frac{1}{\sqrt{f}}\right]$$

$$D_f = \left[k\pi - \frac{\pi}{\sqrt{f}}, k\pi + \frac{\pi}{\sqrt{f}}\right]$$



الف) $y = \sqrt{1 - \log \frac{x-1}{f}}$

$$1 - \log \frac{x-1}{f} \geq 0$$

$$1 \geq \log \frac{x-1}{f} \rightarrow \frac{1}{f} \geq \frac{x-1}{f}$$

$$\frac{1}{f} \geq \frac{x-1}{f} \rightarrow 1 \geq x-1$$

$$\frac{1}{f} \geq \frac{x-1}{f} \rightarrow \frac{1}{f} \geq \frac{x-1}{f}$$

$$D_f = (-\infty, 1)$$

سوال ۹

$$y = \frac{\sqrt{x^2 - x}}{1 - \log \frac{x^2 - x}{f}}$$

$$1 - \log \frac{x^2 - x}{f} \neq 0 \rightarrow x^2 - x - \frac{f}{f-1} \neq 0 \rightarrow x \neq -1, \frac{f}{f-1}$$

$$1 - \log \frac{x^2 - x}{f} \neq 0$$

$$1 \neq \log \frac{x^2 - x}{f}$$

$$f \neq \frac{x^2 - x}{x^2 - x - f} \rightarrow \frac{-b}{a} = \frac{-f}{1} \neq x$$

$$\frac{0}{+} \mid \frac{+}{-} \mid \frac{+}{+} \rightarrow (-\infty, 0) \cup (f, +\infty)$$

$$D_f = (-\infty, 0) \cup (f, +\infty)$$

سوال ۱۰

الف) $\frac{f(x-n^2)}{x-n^2} \geq 0 \rightarrow \frac{f(x-n^2)}{x-n^2} \geq 1$

$$f(x-n^2) \geq x-n^2$$

$$f(x-n^2) \geq x-n^2$$

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

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

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

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

$$\left(\frac{x(n+d)}{x(n+f)} \right)!$$

$$\frac{x(n+d)}{x(n+f)} \in \mathbb{W}$$

$$x(n+d) = x(n+f) + f(n-d)$$

$$x(n-d) = f(n-d) \rightarrow x = \frac{f(n-d)}{n-d}$$

$$x = \frac{f(n-d)}{n-d}$$

$$x = \frac{f(n-d)}{n-d}$$

$$x = \frac{f(n-d)}{n-d}$$