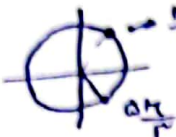
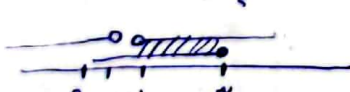


$a - 2 = 0$ $a = 2$	$2a + b \rightarrow a = 2$ $4 + b = 0$ $b = -4$	۱
$x^2 + 2x + 2 - m^2 \geq 0$ $x^2 + 2x + 1 + 1 - m^2 \geq 0$ $(x+1)^2 + 1 - m^2 \geq 0$ $x+1 = 0$ $x = -1$	$1 - m^2 \geq 0$ $m^2 \leq 1 \rightarrow -1 \leq m \leq 1$ $1 - m^2 \geq 0$ $m^2 \leq 1 \rightarrow -1 \leq m \leq 1$	۲
$f - ax^2 \geq 0$ $ax^2 \leq f$ $2 \leq a \leq 2$	$[a] + [-a] \neq 0$ $[a] + [-a] \neq -1$ $a \in \mathbb{Z}$	۳
$(a-1)(a+1)ax^2(a-3)$ ax^2-1 $a=1$ $a=-1$ $a=0$ $a=3$ $a=1$	$ax^3 + 3ax^2 \geq 0$ $ax^2(a+3) \geq 0$ $a=0$ $a=-3$	۴
$f - a+2 \geq 0$ $ f-a \leq f$ $-f \leq f-a \leq f$ $f-a \geq -f$ $a \leq 4$ $f-a \leq f$ $a \geq 2$ $2 \leq a \leq 4$	$ a-2 - 3 \geq 0$ $ a-2 \geq 3 \rightarrow a-2 \geq 3$ $a-2 \leq -3$ $a \geq 5$ $a \leq -1$	۵

صورت سوال را اشتباه ننویس! $\sqrt{3} \ln - a$ $\sqrt{3} \ln - a$

$r - x - a - 1 \geq \sqrt{3} \ln - a - 1 \neq 0$ $r - x - a \geq 0$ $ a - x \leq r$ $-r \leq a - x \leq r$ $r \leq x \leq r$ $D_f = [r, r]$	$1 - a x \geq 0$ $a x \leq 1 \rightarrow \begin{matrix} a=1 \checkmark \\ a=r \checkmark \\ a=a \checkmark \\ a=-1 \checkmark \end{matrix}$ $D_f = [-1, 1]$ (الف)	6
$r \cos -1 \neq 0$ $r \cos a \neq 1$ $\cos a \neq \frac{1}{r}$  $D_f = R - \{r k \pi \pm \frac{\pi}{r}\}$	$\cos a \neq 0$  $D_f = R - \{k \pi + \frac{\pi}{r}\}$ (الف)	7
$ r a + 1 - a + r \geq 0 \rightarrow r a + 1 \geq a + r $ $(r a + 1)^2 \geq (a + r)^2 \rightarrow (r a + 1)^2 - (a + r)^2 \geq 0$ $((r a + 1) + (a + r)) ((r a + 1) - (a + r)) \geq 0$ $\begin{matrix} r a + 1 + a + r & r a + 1 - a - r \\ r a + r + a + 1 & r a - a - r + 1 \end{matrix}$ $\begin{matrix} r a + r + a + 1 & r a - a - r + 1 \end{matrix}$ $r a + r + a + 1 = 0 \rightarrow a = -\frac{r}{r+1}$ $r a - a - r + 1 = 0 \rightarrow a = \frac{r-1}{r+1}$ $a = -\frac{r}{r+1} \leq a \leq \frac{r-1}{r+1}$ $D_f = R - \{-\frac{r}{r+1}, \frac{r-1}{r+1}\}$ باید متین حمایت کند!	$ r a + 1 - a + r \neq 0$ $ r a + 1 = a + r $ $(r a + 1)^2 = (a + r)^2$ $(r a + 1)^2 - (a + r)^2 = 0$ $((r a + 1) - (a + r)) ((r a + 1) + (a + r)) = 0$ $(r a - a - r + 1) (r a + r + a + 1) = 0$ $(a - r) (r a + r + a + 1) = 0$ $a = r$ $a = -\frac{r}{r+1}$ $D_f = R - \{-\frac{r}{r+1}, r\}$ (الف)	8
$r a - 1 > 0$ $r a > 1$ $a > \frac{1}{r}$ $\log_{\frac{1}{r}} r a - 1 > 0$ $r a - 1 > 1$ $r a > 2$ $\frac{a > 1}{r}$ 	$\log_{\frac{1}{r}} r a - 1 \geq 0$ $\log_{\frac{1}{r}} r a - 1 \leq 1$ $r a - 1 \leq 0$ $r a \leq 1$ $a \leq \frac{1}{r}$ $D_f = (1, r]$	9
$\log \left(\frac{a-1}{a+1} \right) \geq 0 \rightarrow \frac{a-1}{a+1} \geq 1$ $\frac{a-1}{a+1} - 1 \geq 0 \rightarrow \frac{a-1-a-1}{a+1} \geq 0$ $\frac{-2}{a+1} \geq 0$ $a+1 < 0$ $a < -1$ $D_f = (-\infty, -1)$	$r \cos a + 1 > 0$ $r \cos a > -1$ $\cos a > -\frac{1}{r}$  $D_f = [0, r] - \left[\frac{r k \pi}{r}, \frac{r k \pi}{r} \right]$ چرا دستور ننویس!	10

$$R - \left[r k \pi + \frac{r \pi}{r}, r k \pi + \frac{r \pi}{r} \right]$$

$$4- \text{ب}) \quad 3 - |n-5| \geq 0 \rightarrow |n-5| \leq 3 \rightarrow -3 \leq n-5 \leq 3 \rightarrow 2 \leq n \leq 8$$

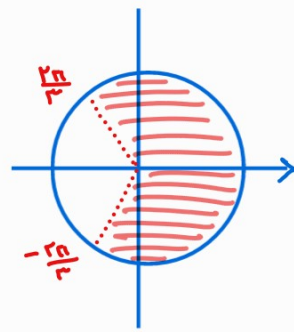
$$\sqrt{3 - |n-5|} - 1 \neq 0 \rightarrow \sqrt{3 - |n-5|} \neq 1 \rightarrow 3 - |n-5| \neq 1 \rightarrow |n-5| \neq 2 \rightarrow n \neq 3, 7$$

$$D_f = [2, 8] - \{3, 7\} = [2, 3) \cup (3, 7) \cup (7, 8]$$

$$8- \text{ب}) \quad |x_{n+1}| - |n+3| \geq 0 \rightarrow |x_{n+1}| \geq |n+3| \xrightarrow{\text{تقريب}} \sqrt{n^2 + 2n + 1} \geq \sqrt{n^2 + 4n + 9} \rightarrow n^2 - 2n - 8 \geq 0$$

$$\frac{-\frac{4}{2} \pm \sqrt{\frac{16}{4} - 4(-8)}}{2(-2)} \rightarrow D_f = (-\infty, -\frac{4}{2}] \cup [\frac{4}{2}, +\infty)$$

$$10- \text{الف}) \quad 2C \cdot \sin \theta + 1 > 0 \rightarrow C \cdot \sin \theta > -\frac{1}{2}$$



$$\rightarrow D_f = (2k\pi - \frac{\pi}{6}, 2k\pi + \frac{\pi}{6})$$