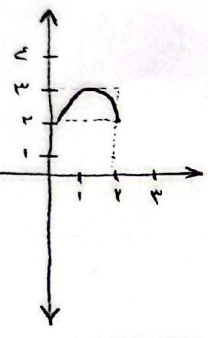
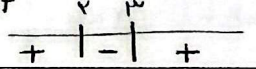
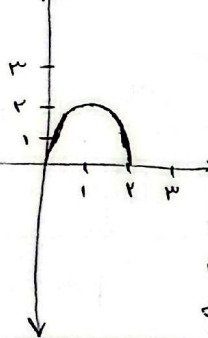
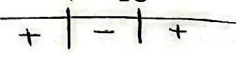
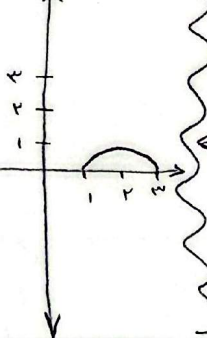
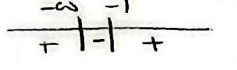
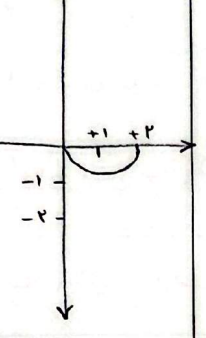
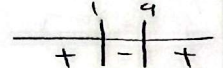
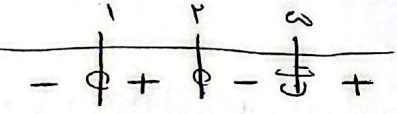
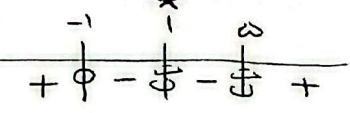
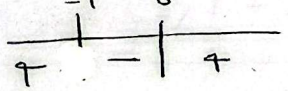
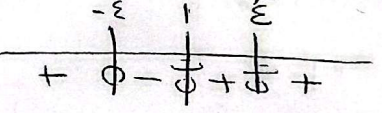


الف)  $x^2 - 5x + 6 > 0$ $(x-3)(x-2) > 0$ $x=3, x=2$ ← $D_f = \mathbb{R} - \{2, 3\}$ 	ب)  $x^2 - 6x + 5 < 0$ $(x-1)(x-5) < 0$ $x=1, x=5$ ←  $D_f = [1, 5]$	ج)  $x^2 + 4x + 5 > 0$ $(x+1)(x+5) > 0$ $x=-1, x=-5$ ←  $D_f = (-\infty, -5] \cup [-1, +\infty)$	د)  $(x-1)(x-4) < 0$ $x=1, x=4$ ←  $D_f = [1, 4]$	۱
الف) $\frac{(x-1)(x-2)}{x-5} < 0$  $D_f = (-\infty, 1) \cup (2, 5)$	ب) $\frac{(x-1)(x+1)}{(x-1)(x-5)} \geq 0$  $D_f = (-\infty, -1] \cup (5, +\infty)$	۳		
الف) $\frac{x^3-1}{x^3-x} \geq 0$ $D_f = (-\infty, -1) \cup (0, +\infty)$ $\frac{(x-1)(x^2+x+1)}{x(x-1)(x+1)} \geq 0$ $\frac{x^2+x+1}{x(x+1)} \geq 0$ 	ب) $\frac{(x-4)(x+4)}{(x-1)(x-1)} \geq 0$  $D_f = (+\infty, -4] \cup (1, 4) \cup (4, +\infty)$	۴		
الف) $\frac{x^2-1}{x^2-x} \geq 0$ $D_f = [-1, 2]$	الف) $\begin{cases} \varepsilon - \sqrt{2-x} > 0 \\ \sqrt{2-x} < \varepsilon \\ 2-x < 14 \\ x > -14 \\ 2-x > 0 \\ x < 2 \end{cases}$	ب) $\begin{cases} x-2 > 0 \\ x > 2 \\ 3 - \sqrt{x-2} > 0 \\ \sqrt{x-2} < 3 \\ x-2 < 9 \\ x < 11 \end{cases}$	۵	

$$D_f = [2, 11]$$

$\text{ا) } \varepsilon - r n^2 \geq 0$ $r n^2 \leq \varepsilon$ $n^2 \leq \frac{\varepsilon}{r}$ $-\sqrt{\frac{\varepsilon}{r}} \leq n \leq \sqrt{\frac{\varepsilon}{r}}$ $D_f = [-\sqrt{\frac{\varepsilon}{r}}, +\sqrt{\frac{\varepsilon}{r}}]$	$\rightarrow) r n - q \geq 0$ $r n \geq q$ $ n \geq \frac{q}{r}$ $n \geq \frac{q}{r}, n \leq -\frac{q}{r}$ $D_f = (-\infty, -\frac{q}{r}] \cup [\frac{q}{r}, +\infty)$	6
$\rightarrow) \sqrt{n} - r \neq 0$ $\sqrt{n} \neq r$ $n \neq r^2$ $D_f = [0, r^2) \cup (r^2, \infty)$ $D_f = \mathbb{R} - \{r^2\}$	$\text{ا) } n - r \neq 0$ $ n \neq r$ $n \neq \pm r$ $D_f = \mathbb{R} - \{-r, +r\}$ $D_f = (-\infty, -r) \cup (-r, r) \cup (r, \infty)$	7
$\text{ا) } r \cos n - 1 \neq 0 \rightarrow \cos n \neq \frac{1}{r} \rightarrow D_f = \mathbb{R} - \{k\pi + \frac{\pi}{r}, k\pi + \frac{3\pi}{r}\}$ $\rightarrow) r \sin n + 1 \neq 0 \rightarrow \sin n \neq -\frac{1}{r} \rightarrow D_f = \mathbb{R} - \{k\pi + \frac{\pi}{r}, k\pi + \frac{3\pi}{r}\}$ $\text{ع) } \cot n - 1 \neq 0 \rightarrow \cot n \neq 1$ $\sin n \neq 0$ $D_f = \mathbb{R} - \{k\pi + \frac{\pi}{2}, k\pi\}$	$\rightarrow) \varepsilon \sin^2 n - r \neq 0 \rightarrow \sin^2 n \neq \frac{r}{\varepsilon} \rightarrow \sin n \neq \pm \sqrt{\frac{r}{\varepsilon}} \rightarrow D_f = \mathbb{R} - \{k\pi + \frac{\pi}{2}, k\pi + \frac{3\pi}{2}, k\pi + \frac{\pi}{\sqrt{\frac{r}{\varepsilon}}}, k\pi + \frac{3\pi}{\sqrt{\frac{r}{\varepsilon}}}\}$	8
$r \times n - r - \frac{1}{r} > 0$ $r n - r \geq \frac{1}{r}$ $ n - r > \frac{1}{\varepsilon} \rightarrow \begin{cases} n - r > \frac{1}{\varepsilon} \rightarrow n > \frac{1}{\varepsilon} + r \rightarrow n > \frac{q}{\varepsilon} \\ n - r < -\frac{1}{\varepsilon} \rightarrow n < -\frac{1}{\varepsilon} + r \rightarrow n < \frac{q}{\varepsilon} \end{cases}$	$D_f = (-\infty, \frac{q}{\varepsilon}) \cup (\frac{q}{\varepsilon}, +\infty)$	9
$\text{ا) } \varepsilon - r n \geq 0$ $r n \leq \varepsilon$ $ n \leq \frac{\varepsilon}{r}$ $-r \leq n \leq r$ $D_f = [-r, r]$	$\rightarrow) \sqrt{\frac{ n }{ n }}$ $ n \neq 0 \rightarrow n \neq 0$ $\frac{ n }{ n } \geq 0$	10

$$D_0 = \mathbb{R} - \{0\}$$