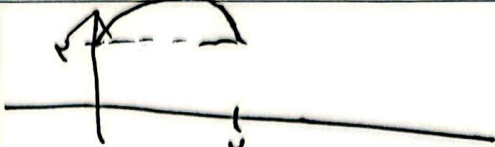


	(ب)		(الف)	1
	(و)		(ج)	
$x^2 - 6x + 5 < 0 \rightarrow (x-1)(x-5) < 0$ $\frac{1}{+} \frac{5}{-} \frac{1}{+} \frac{5}{-}$ $(1, 5)$		$x^2 - 4x + 3 > 0 \rightarrow (x-1)(x-3) > 0$ $\frac{1}{+} \frac{3}{-} \frac{1}{+} \frac{3}{-}$ $(-\infty, 1) \cup (3, +\infty)$		2
$x^2 - 5x + 4 < 0 \rightarrow (x-1)(x-4) < 0$ $\frac{1}{+} \frac{4}{-} \frac{1}{+} \frac{4}{-}$ $[1, 4]$		$x^2 + 6x + 5 \geq 0 \rightarrow (x+1)(x+5) \geq 0$ $\frac{-5}{+} \frac{-1}{-} \frac{-5}{+} \frac{-1}{-}$ $(-\infty, -5] \cup [-1, +\infty)$		
$\frac{x^2 - 1}{x^2 - 6x + 5} \geq 0 \rightarrow \frac{(x-1)(x+1)}{(x-1)(x-5)} \geq 0$ $\frac{-1}{+} \frac{1}{-} \frac{5}{-} \frac{1}{+}$ $(-\infty, -1) \cup (5, +\infty)$		$\frac{x^2 - 3x + 2}{x - 5} \leq 0 \rightarrow \frac{(x-1)(x-2)}{x-5} \leq 0$ $\frac{(x-1)(x-2)}{x-5} \leq 0 \Rightarrow x = 1, 2, 5$ $\frac{1}{+} \frac{2}{-} \frac{5}{-} \frac{1}{+}$ $(1, 2) \cup (2, 5)$		3
$x^2 - 1 \leq (x-4)(x+3)$ $x^2 - 6x + 5 \leq (x-1)(x-5)$ $\frac{-5}{+} \frac{1}{-} \frac{5}{-} \frac{1}{+}$ $(-\infty, -5) \cup (1, 5) \cup (5, +\infty)$	$\left. \begin{array}{l} x=1 \\ x=5 \\ x=-5 \end{array} \right\} \begin{array}{l} (ب) \\ (ج) \\ (د) \end{array}$ $x^3 - x = (x-1)x(x+1)$ $x^3 - 1 = (x-1)(x^2+x+1)$ $\frac{x^3 - 1}{x^3 - x} \geq 0 \rightarrow \frac{(x-1)(x^2+x+1)}{x(x-1)(x+1)} \geq 0$ $\frac{1}{+} \frac{1}{-} \frac{1}{+} \frac{1}{-}$ $(-\infty, -1) \cup (1, +\infty)$	(الف) $\frac{x^3 - 1}{x^3 - x} \rightarrow \frac{x^3 - 1}{x^3 - x} \neq 0$ $\frac{x^3 - 1}{x^3 - x} \geq 0 \rightarrow \frac{(x-1)(x^2+x+1)}{x(x-1)(x+1)} \geq 0$ $\frac{1}{+} \frac{1}{-} \frac{1}{+} \frac{1}{-}$ $(-\infty, -1) \cup (1, +\infty)$		
$y = \sqrt{3 - \sqrt{x-2}} \rightarrow x-2 \geq 0 \rightarrow x \geq 2$ $3 - \sqrt{x-2} \geq 0 \rightarrow 3 \geq \sqrt{x-2}$ $9 \geq x-2 \rightarrow 11 \geq x$ $2 \leq x \leq 11 \rightarrow D_f = [2, 11]$		$x \leq 2 \leftarrow x-m \geq 0$ $3 - \sqrt{x-2} \geq 0 \rightarrow 3 \geq \sqrt{x-2}$ $\Rightarrow 14 \geq x-2 \rightarrow x \leq 14$ $D_f = [-14, 2]$	(الف) $x \leq 2 \leftarrow x-m \geq 0$ $3 - \sqrt{x-2} \geq 0 \rightarrow 3 \geq \sqrt{x-2}$ $\Rightarrow 14 \geq x-2 \rightarrow x \leq 14$ $D_f = [-14, 2]$	5

$y = \sqrt{3 x-9 } \rightarrow 3 x-9 \geq 0$ $3 x \geq 9 \rightarrow x \geq 3 \begin{cases} x \geq 3 \\ x \leq -3 \end{cases}$ $(-\infty, -3] \cup [3, +\infty)$	$\sqrt{4-2x^2} \geq 0 \rightarrow 4-2x^2 \geq 0$ (إذا) $4-2x^2 \geq 0 \rightarrow x^2 \leq 2 \rightarrow -\sqrt{2} \leq x \leq \sqrt{2}$ $D_f = [-\sqrt{2}, \sqrt{2}]$	٤
$\sqrt{x} \geq 0 \rightarrow [x] \geq 0$ (ب) $\sqrt{x-3} \neq 0 \Rightarrow \sqrt{x} \neq 3 \Rightarrow x \neq 9$ $D_f = (0, +\infty) - \{9\}$	الف) $\sqrt{x-3} \neq 0 \rightarrow x-3 \neq 0$ $ x-3 \neq 0 \rightarrow x \neq 3$ $\Rightarrow x \neq 3, x \neq -3$ $D_f = \mathbb{R} - \{3, -3\}$	٧
$r \sin n + 1 \neq 0 \Rightarrow r \sin n \neq -1$ (ب) $\sin n \neq -\frac{1}{r} \Rightarrow D_f = \mathbb{R} - \{n\pi + \frac{3\pi}{2}, n\pi + \frac{5\pi}{2}\}$	الف) $r \cos n - 1 \neq 0 \rightarrow r \cos n \neq 1$ (إذا) $\cos n \neq \frac{1}{r} \Rightarrow D_f = \mathbb{R} - \{n\pi \pm \frac{\pi}{3}\}$	٨
$r \sin^2 n - 3 \neq 0 \rightarrow r \sin^2 n \neq 3$ (ج) $\sin^2 n \neq \frac{3}{r} \rightarrow \sin n \neq \pm \frac{\sqrt{3}}{\sqrt{r}} \Rightarrow D_f = \mathbb{R} - \{n\pi \pm \frac{\pi}{2}\}$	$y = \tan n + r \rightarrow \cos n \neq 0$ $\sin n \neq 0$ $\cos n \neq 1$ $D_f = \mathbb{R} - \{k\pi, \frac{\pi}{2} + k\pi, k\pi + \frac{\pi}{2}\}$	
$y = \frac{1}{\sqrt{2 x-2 -\frac{1}{2}}} \Rightarrow 2 x-2 - \frac{1}{2} > 0 \Rightarrow 2 x-2 > \frac{1}{2}$ $ x-2 > \frac{1}{4} \Rightarrow x-2 < -\frac{1}{4} \text{ or } x-2 > \frac{1}{4}$ $x < \frac{7}{4} \text{ or } x > \frac{9}{4}$ $D_f = (-\infty, \frac{7}{4}) \cup (\frac{9}{4}, +\infty)$		
$\sqrt{\frac{ x }{ x }} \Rightarrow x \neq 0$ $\sqrt{\frac{ x }{ x }} \geq 0 \Rightarrow x \geq 0 \checkmark$ $D_f = \mathbb{R} - \{0\}$	الف) $y = \sqrt{4-2 x }$ $4-2 x \geq 0 \Rightarrow 2 \geq x $ $-2 \leq x \leq 2 \Rightarrow [-2, 2] = D_f$	١٠