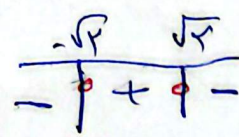
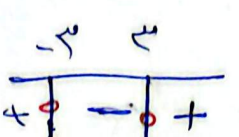
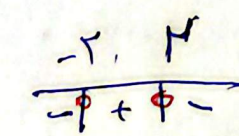


الف) $f(x) + 2$	ب) $2f(x)$	ج) $f(x-1)$	د) $-f(x)$	1
الف) $x^2 - 5x + 2 > 0 \rightarrow (x-2)(x-3) > 0$ $D_f = (-\infty, 2) \cup (3, +\infty)$	ج) $x^2 + 2x + 1 \geq 0 \rightarrow (x+1)(x+1) \geq 0$ $D_f = (-\infty, -1] \cup [-1, +\infty)$	2		
ب) $x^2 - 6x + 5 < 0 \rightarrow (x-1)(x-5) < 0$ $D_f = (1, 5)$	د) $x^2 - 7x + 4 \leq 0 \rightarrow (x-1)(x-4) \leq 0$ $D_f = [1, 4]$			
الف) $\frac{x^2 - 3x + 2}{x - 5} < 0 \rightarrow \frac{(x-2)(x-1)}{x-5} < 0$ $D_f = (-\infty, 1) \cup (2, 5)$	ب) $\frac{x^2 - 1}{x^2 - 4x + 5} \geq 0 \rightarrow \frac{(x-1)(x+1)}{(x-1)(x-4)} \geq 0$ $D_f = (-\infty, -1] \cup (4, +\infty)$	3		
الف) $y = \sqrt{\frac{x^2 - 1}{x^2 - x}} \rightarrow \frac{(x+1)(x-1)}{x(x-1)} \geq 0$ $D_f = (-\infty, -1) \cup (0, 1) \cup (1, +\infty)$	ب) $y = \sqrt{\frac{x^2 - 1}{x^2 - 5x + 4}} \rightarrow \frac{(x+1)(x-1)}{(x-4)(x-1)}$ $D_f = (-\infty, -1] \cup (1, +\infty) - \{4\}$	4		
الف) $y = \sqrt{4 - \sqrt{2-x}}$ $4 - \sqrt{2-x} \geq 0 \rightarrow x \geq -1$ $2-x \geq 0 \rightarrow x \leq 2$ $D_f = [-1, 2]$	ب) $y = \sqrt{4 - \sqrt{x-2}}$ $4 - \sqrt{x-2} \geq 0 \rightarrow x \leq 11$ $x-2 \geq 0 \rightarrow x \geq 2$ $D_f = [2, 11]$	5		

الف) $y = \sqrt{4-2x^2} \rightarrow 4-2x^2 \geq 0 \rightarrow 2x^2 \leq 4$ $\rightarrow x^2 \leq 2 \rightarrow x \leq \pm\sqrt{2}$  $D_f = [-\sqrt{2}, \sqrt{2}]$	ب) $y = \sqrt{3 x -4} \rightarrow 3 x -4 \geq 0$ $3 x \geq 4 \rightarrow x \geq \frac{4}{3} \rightarrow x = \pm\frac{4}{3}$  $D_f = (-\infty, -\frac{4}{3}] \cup [\frac{4}{3}, +\infty)$	6
الف) $y = \sqrt{\frac{ x +1}{ x -3}} \rightarrow x -3 \neq 0 \rightarrow x \neq 3$ $\rightarrow x \neq \pm 3$ $\rightarrow D_f = \mathbb{R} - \{-3, 3\}$	ب) $y = \sqrt{\frac{\sqrt{x}+1}{\sqrt{x}-3}} \rightarrow x \geq 0$ $\sqrt{x}-3 \neq 0 \rightarrow \sqrt{x} \neq 3 \rightarrow x \neq 9$ $\rightarrow D_f = [0, +\infty) - \{9\}$	7
الف) $y = \frac{\sin x}{\sqrt{\cos x+1}} \rightarrow \sqrt{\cos x+1} \neq 0 \rightarrow \cos x \neq -1$ $\rightarrow D_f = \mathbb{R} - \{k\pi \pm \frac{\pi}{2}\}$	ب) $y = \frac{\cos x+1}{\sqrt{\sin x+1}} \rightarrow \sqrt{\sin x+1} \neq 0 \rightarrow \sin x \neq -1$ $\rightarrow D_f = \mathbb{R} - \{k\pi \pm \frac{3\pi}{2}\}$	8
2) $y = \frac{\tan x + 2}{\cot x - 1} \rightarrow \cot x \neq 1 \rightarrow \sin x \neq \cos x$ $\rightarrow D_f = \mathbb{R} - \{k\frac{\pi}{2}, k\pi \pm \frac{\pi}{4}\}$	3) $y = \frac{\sin x+1}{\sqrt{\sin x-2}} \rightarrow \sqrt{\sin x-2} \neq 0 \rightarrow \sin x \neq 2$ $\rightarrow D_f = \mathbb{R} - \{k\pi \pm \frac{\pi}{2}\}$	9
$y = \frac{1}{\sqrt{1-x-2 y -\frac{1}{2}}} \rightarrow 1-x-2 y -\frac{1}{2} > 0 \rightarrow 1-x-2 y > \frac{1}{2} \rightarrow x-y > \frac{1}{2}$ $\rightarrow x-y < -\frac{1}{2}, x-y > \frac{1}{2}$ $\rightarrow x < \frac{y}{2}, x > \frac{y}{2}$ $D_f = (-\infty, \frac{y}{2}) \cup (\frac{y}{2}, +\infty)$		9
الف) $y = \sqrt{4-2 x } \rightarrow 4-2 x \geq 0$ $\rightarrow x \leq \pm 2$  $D_f = [-2, 2]$	ب) $y = \sqrt{\frac{ x }{ x }} \rightarrow \frac{ x }{ x } \geq 0$ $x \neq 0$ $D_f = \mathbb{R} - \{0\}$	10