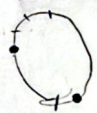
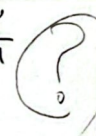
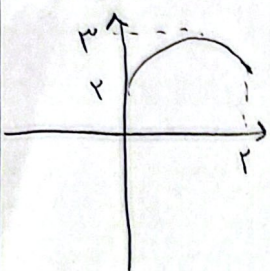
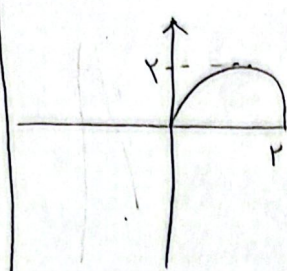
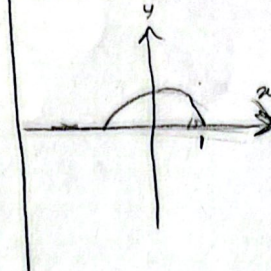
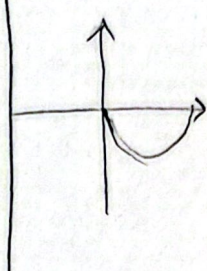
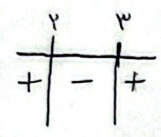
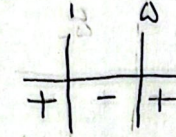
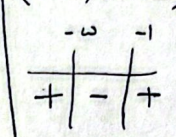
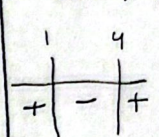
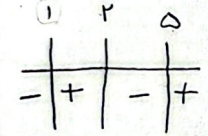
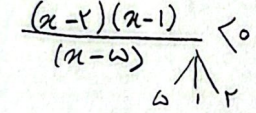
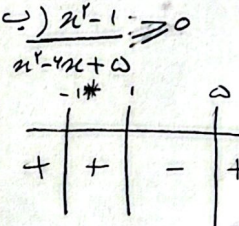


الف) $y = \sqrt{4-2x^2}$ $4-2x^2 \geq 0$ $2x^2 \leq 4$ $x^2 \leq 2$ $D_f = [-\sqrt{2}, \sqrt{2}]$	ب) $y = \sqrt{3 x -9}$ $3 x -9 \geq 0$ $3 x \geq 9$ $x \geq 3$ $D_f = [3, +\infty) \cup (-\infty, -3]$ $x \leq -3$ $x \geq 3$	٤
الف) $y = \frac{\sqrt{ x +1}}{\sqrt{ x -3}}$ $x \neq 1$ $x \neq -3$ $D_f = (-\infty, -3) \cup [-3, 3] \cup (3, +\infty)$	ب) $y = \frac{\sqrt{x+1}}{\sqrt{x-3}}$ $\sqrt{x-3} \neq 0$ $x \neq 3$ $D_f = [0, 3) \cup (3, +\infty)$	٧
الف) $y = \frac{\sin x}{2\cos x - 1}$ $2\cos x - 1 \neq 0$ $\cos x \neq \frac{1}{2}$  $D_f = \mathbb{R} - [2k\pi + \frac{\pi}{3}, 2k\pi + \frac{5\pi}{3}]$	ب) $y = \frac{\cos x + 1}{2\sin x + 1}$ $2\sin x + 1 \neq 0$ $\sin x \neq -\frac{1}{2}$ $D_f = \mathbb{R} - [2k\pi + \pi - \frac{\pi}{6}, 2k\pi + \frac{7\pi}{6}]$	٨
$y = \frac{1}{\sqrt{2 x-2 - \frac{1}{2}}}$ $2 x-2 - \frac{1}{2} > 0$ $x-2 > \frac{1}{4}$ $x-2 > \frac{1}{4} \Rightarrow x > \frac{9}{4}$ $x-2 < -\frac{1}{4} \Rightarrow x < \frac{7}{4}$ $D_f = (-\infty, \frac{7}{4}) \cup (\frac{9}{4}, +\infty)$	ب) $y = \frac{\tan x + 2}{\cot x - 1}$  $D_f = \mathbb{R} - [2k\pi + \frac{\pi}{4}, 2k\pi + \frac{5\pi}{4}]$	٩
الف) $y = \sqrt{4-2 x }$ $4-2 x \geq 0$ $x \leq 2$ $D_f = [-2, 2]$ $-2 \leq x \leq 2$	ب) $y = \sqrt{\frac{ x }{ x }}$ $x \neq 0$ $D_f = \mathbb{R} - [0]$	١٠

الف) $f(x)+2$	ب) $2f(x)$	ج) $f(x-1)$	$-f(x)$	۱
				
الف) $x^2-5x+4 > 0$ $(x-3)(x-2) < 3$  $(3, +\infty) \cup (-\infty, 2)$	ب) $x^2-4x+5 < 0$ $(x-1)(x+5) < +5$  بین ۱ و ۵ منفی است $1 < x < 5$	ج) $x^2+4x+5 \geq 0$ $(x+1)(x+5) < -5$  $(-1, +\infty) \cdot (-\infty, -1)$ $(-\infty, -5)$	$x^2-7x+4 \leq 0$ $(x-1)(x-4) < 4$  $1 \leq x \leq 4$	۲
الف) $x^2-3x+2 < 0$ $\frac{x^2-3x+2}{x-5}$  $(-\infty, 1) \cup (2, 5)$	ب) $x^2-1 \geq 0$ $\frac{(x-2)(x-1)}{(x-5)} < 0$  $(4, +\infty) \cup (-1, -\infty)$	ج) $x^2-1 \geq 0$ $\frac{(x-1)(x+1)}{(x-1)(x-5)} \geq 0$  $(4, +\infty) \cup (-1, -\infty)$	د) $x^2-14x+4 \leq 0$ $\frac{(x-4)(x+4)}{(x-4)(x-1)} \geq 0$ $x \neq 4$ $D = (-\infty, -4] \cup (1, 4) \cup \frac{x+4}{x-1} \geq 0$ $(4, +\infty)$	۳
الف) $y = \sqrt{\frac{x^3-1}{x^3-x}}$ $x^3-x \neq 0$ $x(x^2-1) \neq 0$ $x(x-1)(x+1) \neq 0$ $\frac{x^3-1}{x^3-x} \geq 0$ $\frac{(x-1)(x^2+x+1)}{x(x-1)(x+1)} \geq 0$ $D = (-\infty, -1) \cup (0, 1) \cup (1, +\infty)$	ب) $y = \sqrt{\frac{x^2-14}{x^2-5x+4}}$ $\frac{(x-4)(x+4)}{(x-4)(x-1)} \geq 0$ $x \neq 4$ $D = (-\infty, -4] \cup (1, 4) \cup \frac{x+4}{x-1} \geq 0$ $(4, +\infty)$	ج) $y = \sqrt{3-\sqrt{x-2}}$ $x-2 \geq 0$ $3-\sqrt{x-2} \geq 0$ $3 \geq \sqrt{x-2}$ $9 \geq x-2$ $x \leq 11$ $D = [2, 11]$	د) $y = \sqrt{f-\sqrt{2-x}}$ $2-x \geq 0$ $f-\sqrt{2-x} \geq 0$ $(\sqrt{2-x})^2 \geq f$ $2-x \leq 14$ $x \geq -12$ $D = [-12, 2]$	۴
الف) $y = \sqrt{f-\sqrt{2-x}}$ $2-x \geq 0$ $x \leq 2$ $f-\sqrt{2-x} \geq 0$ $(\sqrt{2-x})^2 \geq f$ $2-x \leq 14$ $x \geq -12$ $D = [-12, 2]$	ب) $y = \sqrt{3-\sqrt{x-2}}$ $x-2 \geq 0$ $3-\sqrt{x-2} \geq 0$ $3 \geq \sqrt{x-2}$ $9 \geq x-2$ $x \leq 11$ $D = [2, 11]$	ج) $y = \sqrt{3-\sqrt{x-2}}$ $x-2 \geq 0$ $3-\sqrt{x-2} \geq 0$ $3 \geq \sqrt{x-2}$ $9 \geq x-2$ $x \leq 11$ $D = [2, 11]$	د) $y = \sqrt{f-\sqrt{2-x}}$ $2-x \geq 0$ $f-\sqrt{2-x} \geq 0$ $(\sqrt{2-x})^2 \geq f$ $2-x \leq 14$ $x \geq -12$ $D = [-12, 2]$	۵