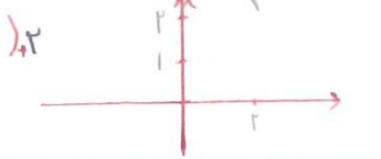
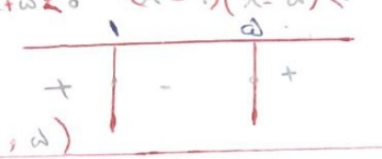
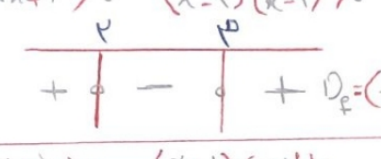
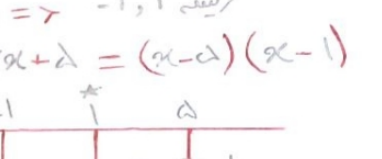
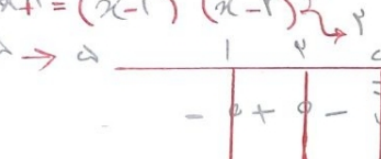
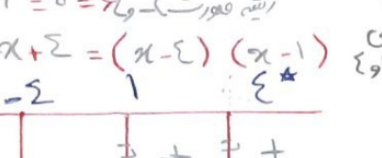
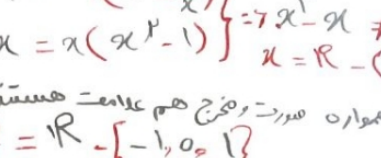
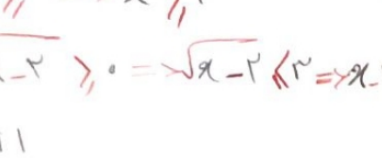


نام و نام خانوادگی: شماره کلاس: نام درس:
 نام و نام خانوادگی: شماره کلاس: نام درس:

(ع) 	(الف) 	1
(د) 	(ب) 	2
(ج) $x^2 - 4x + 5 \leq 0 \quad (x-1)(x-5) \leq 0$  $D_f = (1, 5)$	(الف) $x^2 - 4x + 4 > 0 \quad (x-2)(x-2) > 0$  $D_f = (-\infty, 2) \cup (2, +\infty)$	3
(د) $x^2 - 4x + 4 \leq 0 \quad (x-1)(x-4) \leq 0$  $D_f = [1, 4]$	(ب) $x^2 - 2x + 2 = (x-1)(x-2)$  $D_f = (-\infty, 1) \cup (2, +\infty)$	4
(ج) $x^2 - 14 = 0 \Rightarrow x = \pm \sqrt{14}$ $x^2 - 2x + 2 = (x-1)(x-1)$  $D_f = (-\infty, -\sqrt{14}] \cup (\sqrt{14}, +\infty)$	(الف) $x^2 - 1 = x(x - \frac{1}{x})$ $x^2 - x = x(x - 1)$ $x = 1$ $D_f = \mathbb{R} - \{1\}$	5

$3 x - 9 > 0 \Rightarrow 3 x > 9 \quad (\rightarrow)$ $\Rightarrow x > 3 \Rightarrow$ $D_f = (-\infty, -3] \cup [3, +\infty)$	$7 - 2x^2 > 0 \Rightarrow 2x^2 < 7$ (اف) $\Rightarrow x^2 < \frac{7}{2} = 3.5 \Rightarrow -\sqrt{3.5} \leq x \leq \sqrt{3.5}$ $D_f = [-\sqrt{3.5}, \sqrt{3.5}]$	6
$\sqrt{x} \Rightarrow x \geq 0$ $\sqrt{x} - 3 \neq 0 \Rightarrow \sqrt{x} \neq 3$ $\Rightarrow x \neq 9 \Rightarrow$ $D_f = \mathbb{R}^+ - \{9\} \cup \{0\}$	$ x - 3 \neq 0 \Rightarrow x \neq 3 \Rightarrow$ (اف) $x \neq \pm 3$ $D_f = \mathbb{R} - \{-3, 3\}$	7
$\tan x = \frac{\sin x}{\cos x} \Rightarrow \cos x \neq 0$ (ع) $\cot x = \frac{\cos x}{\sin x} \Rightarrow \sin x \neq 0$ $D_f = \mathbb{R} - \{\frac{k\pi}{2}, k\pi + \frac{\pi}{2}\}$	$2\cos x - 1 \neq 0 \Rightarrow 2\cos x \neq 1$ (اف) $\Rightarrow \cos x \neq \frac{1}{2}$ $D_f = \mathbb{R} - \{2k\pi \pm \frac{\pi}{3}\}$	8
$2\sin^2 x \neq 3 \Rightarrow \sin^2 x \neq \frac{3}{2} \Rightarrow \sin x \neq \pm \frac{\sqrt{3}}{2}$ (ع) $D_f = \mathbb{R} - \{k\pi \pm \frac{\pi}{3}\}$	$2\sin x + 1 \neq 0 \Rightarrow 2\sin x \neq -1$ (ع) $\Rightarrow \sin x \neq -\frac{1}{2}$ $D_f = \mathbb{R} - \{2k\pi - \frac{\pi}{6}, 2k\pi + \frac{5\pi}{6}\}$	
$2 x-2 - \frac{1}{x} > 0 \Rightarrow 2 x-2 > \frac{1}{x} \Rightarrow x-2 > \frac{1}{2x} \Rightarrow x-2 > \pm \frac{1}{2x}$ (اف) $\Rightarrow x > \frac{9}{2}$ $x > \frac{5}{2}$ $D_f = (-\infty, \frac{5}{2}) \cup (\frac{9}{2}, +\infty)$		9
$D_f = \mathbb{R} - \{0\}$ (ب) چون همواره صورت و مخرج هم علامت هستند و زیر رادیکال مثبت فقط زمانی که مخرج تعریف شده است جزء حلات نیست	$2 - 2 x > 0$ (اف) $2 x < 2$ $ x < 1$ $-1 < x < 1$ $\Rightarrow D_f = [-1, 1]$	10