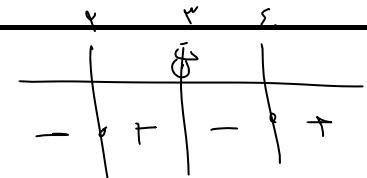
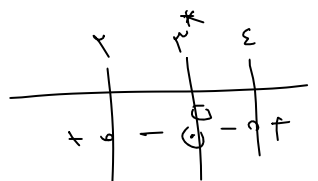
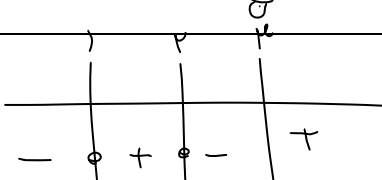
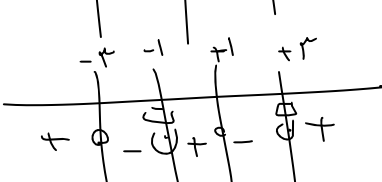
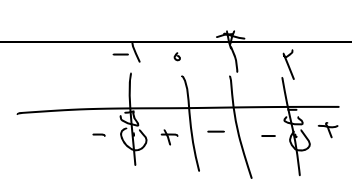
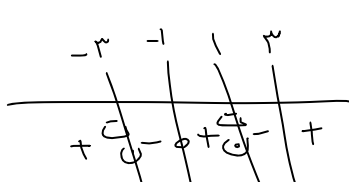
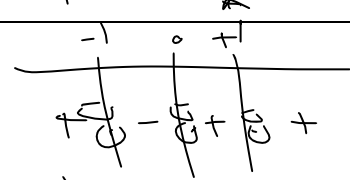
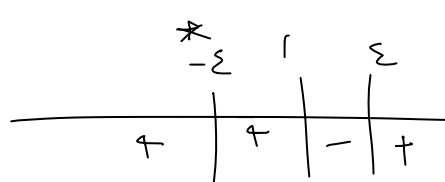


الف) تابع نیست $y''' = x + 2x^2 \rightarrow \text{if } y = 0 \rightarrow y''' = x(2x+1) \begin{cases} 2x+1=0 \rightarrow x = -\frac{1}{2} \\ x=0 \end{cases}$ ب) تابع نیست $\text{if } x = 1 \rightarrow y + 1 = x \rightarrow y = x - 1 \rightarrow y \in [-x+1, x-1] \times$ ج) تابع نیست $\sqrt{x-2} + y-1 = 0 \rightarrow \text{if } y = 0 \rightarrow \sqrt{x-2} + 1 = 0 \rightarrow \sqrt{x-2} = -1 \rightarrow x-2 = 1 \rightarrow x = 3$ د) تابع نیست $x = \cos y \rightarrow \text{if } x = \frac{1}{4} \rightarrow y = \{2k\pi + \frac{\pi}{2}, 2k\pi + \frac{3\pi}{2}\}$	۱
الف) $\frac{x+2}{x(x-2)} \rightarrow \begin{cases} x=0 \\ x-2=0 \rightarrow x=2 \end{cases} D_f = \mathbb{R} - \{0, 2\}$ ب) $x^2 - 7x + 14 = 0 \rightarrow \Delta = b^2 - 4ac \rightarrow \Delta = 49 - 56 = -7 < 0 \rightarrow D_f = \mathbb{R}$ ج) $x^2 + x + 2 = 0 \rightarrow \Delta = b^2 - 4ac \rightarrow 1 - 8 = -7 < 0 \rightarrow D_f = \mathbb{R}$ د) $x + x^2 = 0 \rightarrow \begin{cases} x + x^2 = 0 \rightarrow x(1+x) = 0 \rightarrow \begin{cases} x=0 \\ x=-1 \end{cases} \\ -x + x^2 = 0 \rightarrow x(-1+x) = 0 \rightarrow \begin{cases} x=0 \\ x=1 \end{cases} \end{cases} \rightarrow D_f = \mathbb{R} - \{0, 1, -1\}$	۲
الف) ب) ج) د) سوال ۳ در آزمون برگه دوم است	۳
الف) ب) ج) د)	۵
الف) ب)	۴

الف)  ب) 	$D_f = [1, 3] \cup [5, +\infty)$ $D_f = (-\infty, 1] \cup [3, \infty)$	✓	
الف) $\frac{(x-1)(x-2)}{(x-3)}$ ب) $\frac{x(x+3)(x-1)}{x(x+1)(x-2)}$	  $D_f = [1, 2] \cup [3, +\infty)$ $D_f = (-\infty, -1] \cup [-1, 1] \cup [2, +\infty)$	$D_f = [1, 2] \cup [3, +\infty)$ $D_f = (-\infty, -1] \cup [-1, 1] \cup [2, +\infty)$	∧
الف) $\frac{x^2(-x^2+1)}{x(x-2)(x+1)}$ ب) $\frac{x(x+1)(x-2)}{x(x-1)(x+3)}$	  $D_f = [2, +\infty) \cup [0, -1]$ $D_f = [2, +\infty) \cup [-1, 1] \cup (-\infty, -1]$	$D_f = [2, +\infty) \cup [0, -1]$ $D_f = [2, +\infty) \cup [-1, 1] \cup (-\infty, -1]$	9
الف) $\sqrt{\frac{(x-1)(x^2+1+x)}{x(x^2-1)}}$ ب) $\sqrt{\frac{(x-2)(x+2)}{(x-1)(x-1)}}$	  $D_f = (-\infty, -1] \cup [0, +1] \cup [1, +\infty)$ $D_f = (-\infty, -2] \cup [-2, 1] \cup [2, +\infty)$	$D_f = (-\infty, -1] \cup [0, +1] \cup [1, +\infty)$ $D_f = (-\infty, -2] \cup [-2, 1] \cup [2, +\infty)$	10
الف) $x \leq 4$ / $x \geq 5 \rightarrow D_f = \{x \leq 4\}$ ب) $x^2 + 1 \neq 0 \rightarrow$ <u>دائمًا</u> $\rightarrow D_f = \mathbb{R}$ ج) $x \geq 2, x \geq 2 \rightarrow D_f = \{x \geq 2\}$ د) $x + x^2 \neq 0 \rightarrow$ <u>دائمًا</u> $\rightarrow D_f = \mathbb{R}$		سؤال 11	