

الف) $\pm -2a^2 \geq 0$ $2a^2 \leq 2$ $a^2 \leq 1$ $-\sqrt{1} \leq a \leq \sqrt{1}$
 $D_f = [-\sqrt{1}, \sqrt{1}]$ (P) ✓

ب) $3|a| - 9 \geq 0$ $3|a| \geq 9$ $|a| \geq 3$ $\begin{cases} a \geq 3 \\ a \leq -3 \end{cases}$

$D_f = a \geq 3 \cap a \leq -3 \Rightarrow D_f = (-\infty, -3] \cup [3, +\infty)$

الف) $|a| - 3 \neq 0$ $|a| \neq 3$ $a \neq \pm 3 \Rightarrow D_f = \mathbb{R} - \{\pm 3\}$

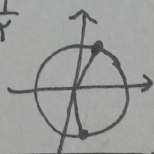
(P) ✓

ب) $\boxed{a \geq 0}$
 $\sqrt{a} - 3 \neq 0$ $\sqrt{a} \neq 3$ $\boxed{a \neq 9}$

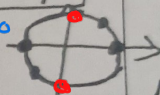
$a \geq 0 \cap a \neq 9 \Rightarrow D_f = [0, +\infty) - \{9\}$

الف) $2 \cos a - 1 \neq 0 \Rightarrow \cos a \neq \frac{1}{2}$

$D_f = \mathbb{R} - \{2k\pi \pm \frac{\pi}{3}\}$

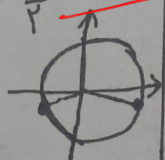


ج) $\cot a - 1 \neq 0 \Rightarrow \boxed{\cot a \neq 1}$
 $D_f = \mathbb{R} - \{k\pi, k\pi + \frac{\pi}{4}\}$ $\boxed{\sin a \neq 0}$ $\text{C-} \sin a \neq 0$



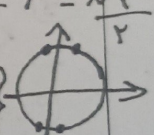
ب) $2 \sin a + 1 \neq 0 \Rightarrow \sin a \neq -\frac{1}{2}$ 1, 2, 3

$D_f = \mathbb{R} - \{2k\pi - \frac{\pi}{6}, 2k\pi + \pi + \frac{\pi}{6}\}$



د) $2 \sin^2 a - 3 \neq 0$ $\sin^2 a \neq \pm \sqrt{\frac{3}{2}}$

$D_f = \mathbb{R} - \{2k\pi \pm \frac{\pi}{4}, 2k\pi + \pi \pm \frac{\pi}{4}\}$



$2|a - 2| - \frac{1}{2} > 0$ $2|a - 2| > \frac{1}{2}$ $|a - 2| > \frac{1}{4}$

$a - 2 > \frac{1}{4}$ $a - 2 < -\frac{1}{4}$

$a > \frac{9}{4}$ $a < \frac{7}{4}$

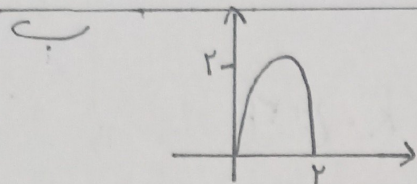
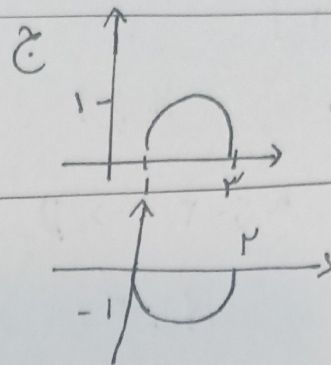
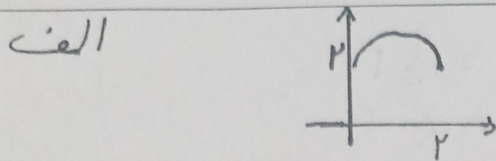
$D_f = a > \frac{9}{4} \cap a < \frac{7}{4} \Rightarrow D_f = (-\infty, \frac{7}{4}) \cup (\frac{9}{4}, +\infty)$ (P) ✓

الف) $2 - 2|a| \geq 0$ $2|a| \leq 2$ $|a| \leq 1$

$-1 \leq a \leq 1 \Rightarrow D_f = [-1, 1]$

ب) $|a| \neq 0$ $a \neq 0 \Rightarrow D_f = \mathbb{R} - \{0\}$ (P) ✓

نام و نام خانوادگی: ... ریاضی ... پاسخنامه تشریحی تکلیف شماره ... کلاس ... دهم ... B ...



(ب) ✓

الف) $(x-2)(x-3) > 0$ $\frac{+}{+} \frac{+}{-} \frac{+}{+}$ $(-\infty, 2) \cup (3, +\infty)$

ب) $(x-1)(x-4) < 0$ $\frac{+}{+} \frac{+}{-} \frac{+}{+}$ $(1, 4)$

ج) $(x+1)(x+4) > 0$ $\frac{-}{+} \frac{-}{-} \frac{-}{+}$ $(-\infty, -4] \cup [-1, +\infty)$

د) $(x-1)(x-4) \leq 0$ $[1, 4] \rightarrow \frac{+}{+} \frac{+}{-} \frac{+}{+}$ لیت

الف) $\frac{(x-2)(x-1)}{(x-4)} < 0$ $\frac{+}{-} \frac{+}{+} \frac{+}{-}$ $(-\infty, 1) \cup (2, 4)$

ب) $\frac{x^2 - 1}{(x-4)(x-1)} \geq 0$ $\frac{-}{+} \frac{+}{-} \frac{+}{-}$ $(-\infty, -1] \cup [1, 4) \cup (4, +\infty)$
 تصیف شده می کنند بابت ۱ لیت

الف) $\frac{x^3 - 1}{x^3 - x} \geq 0$ $\frac{-}{+} \frac{+}{-} \frac{+}{+}$ $D_f = (-\infty, -1) \cup (0, 1) \cup (1, +\infty)$

ب) $\frac{x^3 - 1}{(x-1)(x-4)} \geq 0$ $\frac{-}{+} \frac{+}{-} \frac{+}{+}$ $D_f = (-\infty, -1] \cup (1, 4) \cup (4, +\infty)$
 (ب) ✓

الف) $y = \sqrt{4-x} - \sqrt{x-2}$ $x-2 \geq 0$ $x \leq 4$ $D_f = [-1, 4]$
 $4 - \sqrt{x-2} \geq 0$ $\sqrt{x-2} \leq 4$ $x-2 \leq 14$ $x \leq 16$
 $x \leq 4 \cap x \geq -1 = [-1, 4]$
 (ب) ✓

ب) $y = \sqrt{x-3} - \sqrt{x-2}$ $x-2 \geq 0$ $x \geq 2$ $D_f = [2, 11]$
 $3 - \sqrt{x-2} \geq 0$ $\sqrt{x-2} \leq 3$ $x-2 \leq 9$ $x \leq 11$
 $x \geq 2 \cap x \leq 11 \Rightarrow D_f = [2, 11]$