

الف) $1 - 2x^2 \geq 0$ $2x^2 \leq 1$ $x^2 \leq \frac{1}{2}$ $-\sqrt{\frac{1}{2}} \leq x \leq \sqrt{\frac{1}{2}}$
 $D_f = [-\sqrt{\frac{1}{2}}, \sqrt{\frac{1}{2}}]$

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

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

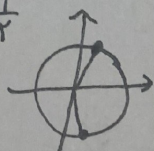
الف) $|x| - 3 \neq 0$ $|x| \neq 3$ $x \neq \pm 3 \Rightarrow D_f = \mathbb{R} - \{\pm 3\}$

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

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

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

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



ج) $\cot x - 1 \neq 0 \Rightarrow \boxed{\cot x \neq 1}$

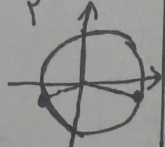
$D_f = \mathbb{R} - \{k\pi, k\pi + \frac{\pi}{4}\}$

$\boxed{\sin x \neq 0}$



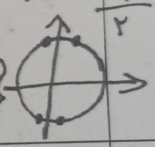
ب) $2 \sin x + 1 \neq 0 \Rightarrow \sin x \neq -\frac{1}{2}$

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



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

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



$2|x - 2| - \frac{1}{x} > 0$ $2|x - 2| > \frac{1}{x}$ $|x - 2| > \frac{1}{2x}$

$x - 2 > \frac{1}{2x}$ $x - 2 < -\frac{1}{2x}$

$x > \frac{9}{4}$ $x < \frac{5}{4}$

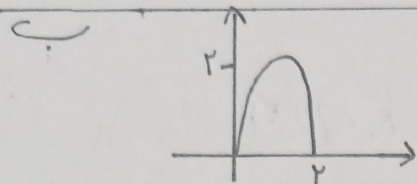
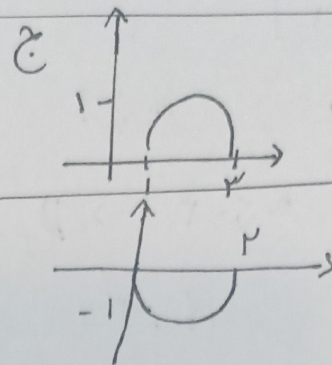
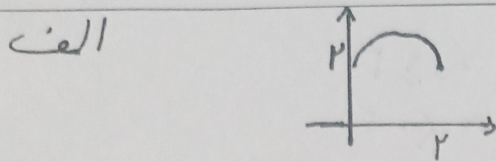
$D_f = x > \frac{9}{4} \cap x < \frac{5}{4} \Rightarrow D_f = (-\infty, \frac{5}{4}) \cup (\frac{9}{4}, +\infty)$

الف) $1 - 2|x| \geq 0$ ~~$1 - 2|x| \geq 0$~~ $2|x| \leq 1$ $|x| \leq \frac{1}{2}$

$- \frac{1}{2} \leq x \leq \frac{1}{2} \Rightarrow D_f = [-\frac{1}{2}, \frac{1}{2}]$

ب) $|x| \neq 0$ $x \neq 0 \Rightarrow D_f = \mathbb{R} - \{0\}$

نام و نام خانوادگی: سید رضا... پاسخنامه تشریحی تکلیف شماره ۵ کلاس ۱۰ ... ۱۳۹۸ ... ۱۳۹۸ ... ۱۳۹۸ ...



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

ب) $(x-1)(x-5) < 0$ $\frac{+}{-} \frac{+}{-} \frac{+}{+}$ $(1, 5)$

ج) $(x+1)(x+5) > 0$ $\frac{-}{+} \frac{-}{-} \frac{-}{+}$ $(-\infty, -5] \cup [-1, +\infty)$

د) $(x-1)(x-4) \leq 0$ $[1, 4]$

الف) $\frac{(x-2)(x-1)}{(x-5)} < 0$ $\frac{+}{-} \frac{+}{-} \frac{+}{+}$ $(-\infty, 1) \cup (2, 5)$

ب) $\frac{x^2 - 1}{(x-5)(x-1)} \geq 0$ $\frac{-}{+} \frac{+}{-} \frac{+}{+}$ $(-\infty, -1) \cup \{1\} \cup (5, +\infty)$

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

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

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

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