

نام و نام خانوادگی شماره کلاس دهم دفتر A

الف	$y = \sqrt{4 - \sqrt{2-x}}$	$2-x \geq 0$ $2 \geq x$	$4 - \sqrt{2-x} \geq 0$ $4 \geq \sqrt{2-x}$ $16 \geq 2-x \rightarrow x \geq -14$	$D_f = [-14, 2]$	1
ب	$y = \sqrt{3 - \sqrt{x-2}}$	$x-2 \geq 0$ $x \geq 2$	$3 - \sqrt{x-2} \geq 0$ $3 \geq \sqrt{x-2}$ $9 \geq x-2$	$11 \geq x$ $D_f = [2, 11]$	
الف	$y = \sqrt{4-2x^2}$	$4-2x^2 \geq 0$ $4 \geq 2x^2$ $2 \geq x^2$	$\sqrt{2} \geq x$	$D_f = (-\infty, \sqrt{2}]$	2
ب	$y = \sqrt{3 x -9}$	$3 x -9 \geq 0$ $3 x \geq 9$ $ x \geq 3$	$-3 \leq x \leq 3$	$D_f = (-\infty, -3] \cup [3, +\infty)$	
الف	$y = \sqrt{\frac{ x +1}{ x -3}}$	$ x -3 \neq 0$ $ x \neq 3 \rightarrow x \neq \pm 3$		$D_f = \mathbb{R} - \{\pm 3\}$	3
ب	$y = \sqrt{\frac{\sqrt{x}+1}{\sqrt{x}-3}}$	$\begin{cases} x \geq 0 \\ \sqrt{x}-3 \neq 0 \rightarrow \sqrt{x} \neq 3 \\ x \neq 9 \end{cases}$		$D_f = [0, +\infty) - \{9\}$	
الف	$y = \frac{\sqrt{3- x }}{ x +2}$	$3- x \geq 0$ $3 \geq x $ $3 \geq x \geq -3$	$ x +2 \neq 0$ $ x \neq -2$ بسیار	$D_f = [-3, 3]$	4
ب	$y = \frac{\sqrt{4-x^2}}{ x -1}$	$4-x^2 \geq 0$ $4 \geq x^2$ $2 \geq x$	$ x -1 \neq 0$ $ x \neq 1$ $x \neq \pm 1$	$D_f = (-\infty, 2] - \{\pm 1\}$	
الف	$y = \frac{x+1}{\sqrt{x+ x }}$	$x+ x > 0$ نقطه مثبت ما بزرگ است		$D_f = [1, +\infty)$	5
ب	$y = \frac{1}{\sqrt{x x }}$	$x x > 0$ نقطه مثبت ما بزرگ است		$D_f = [1, +\infty)$	

الف $y = \sqrt{2 - [x]}$

$2 - [x] \geq 0$
 $2 > [x]$

$D_f = (-\infty, 3)$

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ب $y = \frac{1}{\sqrt{2 - [x]}}$

$2 - [x] > 0$
 $2 > [x]$

$D_f = (-\infty, 2)$

الف $y = \frac{1}{x[x]}$

$x[x] \neq 0$

$D_f = \mathbb{R} - \{0\}$

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ب $y = \frac{1}{\sqrt{-x[x]}}$

$-x[x] > 0$
 $x[x] < 0$

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الف $y = \sqrt{\left[x - \frac{1}{x}\right] + \left[x + \frac{1}{x}\right]} = \left[x - \frac{1}{x}\right] + \left[x + \frac{1}{x}\right] \geq 0$ $\left[x - \frac{1}{x}\right] \cdot \left[x + \frac{1}{x} - 1\right] \geq 0$

$x\left[x - \frac{1}{x}\right] \geq 1$ $\left[x - \frac{1}{x}\right] \geq \frac{1}{x}$ $x - \frac{1}{x} \geq 1$ $x \geq \frac{x}{x}$ $D_f = \left[\frac{x}{x}, +\infty\right)$

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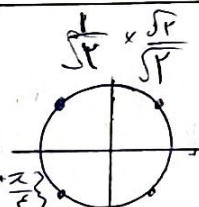
ب $y = \sqrt{\left[x - \frac{1}{x}\right] + \left[-x + \frac{1}{x}\right]}$ $\sqrt{\left[x - \frac{1}{x} + (-x + \frac{1}{x})\right]} = D_f = \{x \mid x = k + \frac{1}{x}, k \in \mathbb{Z}\}$

الف $y = \frac{1}{x \sin^2 x - 1}$

$x \sin^2 x - 1 \neq 0$
 $x \sin^2 x \neq 1$
 $\sin^2 x \neq \frac{1}{x}$

$\sin x \neq \sqrt{\frac{1}{x}}$
 $\sin x \neq \frac{\sqrt{x}}{x}$

$D_f = \mathbb{R} - \left\{k\frac{x}{x} + \frac{x}{x}\right\}$



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ب $y = \frac{\cot x + 1}{\tan x + 1}$

$\frac{\sin x}{\cos x} + 1 \neq$
 $\frac{\sin x}{\cos x} \neq -1$

$D_f = \mathbb{R} - \left\{kx - \frac{\pi}{x}, kx + \frac{\pi}{x}\right\}$
 $\cos x \neq 0$

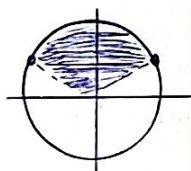


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الف $y = \sqrt{2 \sin x - 1}$

$2 \sin x - 1 \geq 0$
 $2 \sin x \geq 1$
 $\sin x \geq \frac{1}{2}$

$D_f = \left[2kx + \frac{\pi}{x}, 2kx + \frac{3\pi}{x}\right]$



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ب $y = \sqrt{1 - 2 \cos x}$

$1 - 2 \cos x \geq 0$
 $1 \geq 2 \cos x$
 $\frac{1}{2} \geq \cos x$

$D_f = \left[2kx + \frac{\pi}{x}, 2kx + \frac{3\pi}{x}\right]$

