

نام و نام خانوادگی: پاسنامه تشریحی تکلیف شماره: کلاس: B

الف) $y = \frac{x+1}{x-1}$ $\rightarrow Df = \mathbb{R} - \{1\}$ $\{1, 5, 1, 5\} \times 13$
 $x=1$ $x^3 - 10x^2 + 11x - 10x^0$ $x^3 - 20x^2 + 11x - 10$ $\frac{x-1}{x^2-14x+15}$
 $x \neq 1, -\frac{1}{5}$ $x^2 - 14x + 15 \rightarrow x^2 - 14x + 90$ $-14x^2 + 11x$
 $Df = \mathbb{R} - \{1, -\frac{1}{5}\}$ $x^2 - 14x + 15 \rightarrow x^2 - 14x + 90$ $-14x^2 + 11x$
 $x_1 = 1, x_2 = \frac{1}{5}$ $x^2 - 14x + 15 \rightarrow x^2 - 14x + 90$ $-14x^2 + 11x$

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الف) $y = \sin x$ $\rightarrow Df = \mathbb{R} - \{1\}$ $\{1, 5, 1, 5\} \times 13$
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ج) $y = \tan x + 1$ $\rightarrow Df = \mathbb{R} - \{1\}$ $\{1, 5, 1, 5\} \times 13$
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ه) $y = \frac{x^2-3x+2}{x-1}$ $\rightarrow Df = \mathbb{R} - \{1\}$ $\{1, 5, 1, 5\} \times 13$
 $x=1$ $x^3 - 10x^2 + 11x - 10x^0$ $x^3 - 20x^2 + 11x - 10$ $\frac{x-1}{x^2-14x+15}$
 $x \neq 1, -\frac{1}{5}$ $x^2 - 14x + 15 \rightarrow x^2 - 14x + 90$ $-14x^2 + 11x$
 $Df = \mathbb{R} - \{1, -\frac{1}{5}\}$ $x^2 - 14x + 15 \rightarrow x^2 - 14x + 90$ $-14x^2 + 11x$

الف) $\sqrt{\frac{x^2 - 4x + 3}{x^3 - 1}} \rightarrow \frac{(x-1)(x-3)}{(x-1)(x^2+x+1)}$ $\frac{x}{x^2 - x + 1}$ $DF = [3, +\infty)$

ب) $y = \sqrt{\frac{x^2 - 4x + 3}{x^3 - 1}} \rightarrow (x-1)(x^2+x+1)$ $DF = \mathbb{R} - \{1, -1\}$

الف) $y = \log(x^2 - 2x)$ $x^2 - 2x > 0$ $DF = (-\infty, 0) \cup (2, +\infty)$

ب) $y = \log(4 - x^2)$ $0 < 4 - x^2 < 4$ $DF = (-2, 2)$

ج) $y = \log \frac{x^2 - 6x + 9}{10 - x}$ $\frac{(x-3)^2}{10-x} > 0$ $DF = (-\infty, -10) \cup (-10, 3) \cup (3, +\infty)$

د) $y = \sqrt{x^2 - 11x + 18} + \log_x \sqrt{4 - x^2}$ $DF = (-2, 2) \cup (2, 4)$

الف) $y = x^2 - x \Rightarrow x(x-1)$ $DF = [0, 1]$

ب) $y = \frac{x^2 - x}{x^2 + x}$ $DF = \mathbb{R} - \{0, -1\}$

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الف) $y = \frac{\sin x + 1}{\sin^2 x - 2}$ $DF = \mathbb{R} - \{2k\pi + \pi, 2k\pi + \frac{\pi}{2}\}$

الف) $y = \sqrt{\frac{x - f(x)}{f(x)}}$ $DF = (-1, -1] \cup (2, 3]$

الف) $\frac{x^3 - x^2 - 11x - 6}{x^3 - 4x^2 + 4x}$ $DF = \mathbb{R} - \{0, 1, 3\}$

