نام و نام خانوادگی ..پارسا اکبر..... پاسخنامه تشریحی تکلیف شماره ..۳.... کلاس ..دهم B.. چارشنبه‌ها

۱

الف) $y^2 - x = 2x^2 \Rightarrow y^2 = 2x^2 + x \Rightarrow y = \sqrt{2x^2+x} \Rightarrow Df = \mathbb{R}$ تابع هست

ب) $|y| + x^2 = x + 2 \Rightarrow |y| = -x^2 + x + 2 \Rightarrow \frac{-1 \pm \sqrt{1+8}}{-2}$ تابع نیست

ج) $\sqrt{x-4} + |y-2| = 0 \Rightarrow x = 4 \text{ و } y = 2$ تابع هست

د) $x = \cos y \Rightarrow x = 0 \Rightarrow \cos y = 0 \Rightarrow y = 90 \text{ یا } 270$ تابع نیست

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الف) $x^2 - 4x = x(x-4) \Rightarrow Df = \mathbb{R} - \{0, 4\}$

ب) $x^2 - 7x + 16 \Rightarrow \frac{7 \pm \sqrt{-23}}{2} \Rightarrow Df = \mathbb{R}$

ج) $x^2 + x + 4 = \frac{-1 \pm \sqrt{-15}}{2} \Rightarrow Df = \mathbb{R}$

د) $x^4 - 4x^2 \Rightarrow x^2(x^2-4) \Rightarrow Df = \mathbb{R} - \{0, 2\}$

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الف) $Df = [2, 6]$

ب) $Df = \mathbb{R}$

ج) $Df = \mathbb{R} - (-\infty, 2) \cup \{4\}$

د) $Df = \mathbb{R}$

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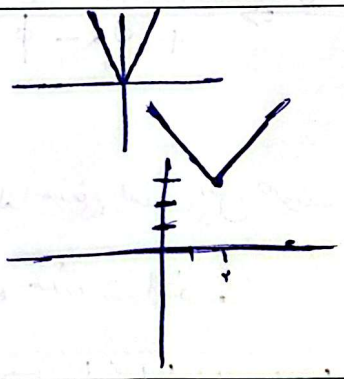
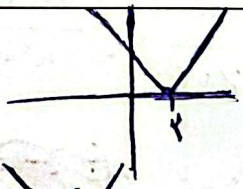
ب)

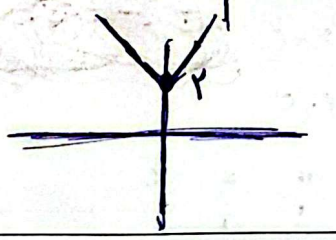


ج)



د)

الف)



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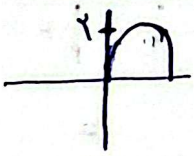
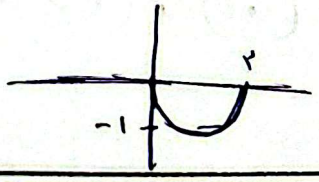
ب)

الف)



د)



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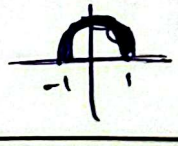

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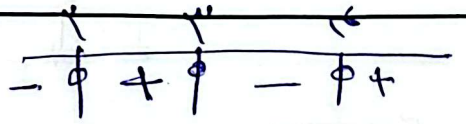
الف)



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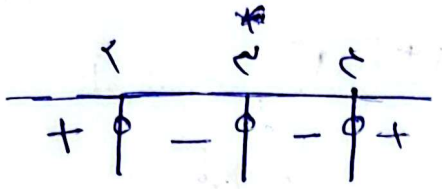

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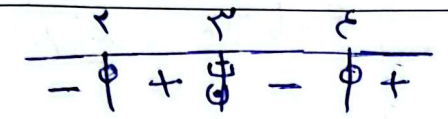
الف)



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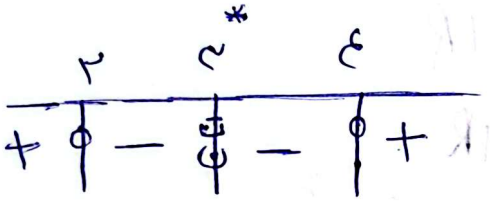

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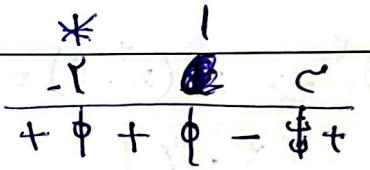
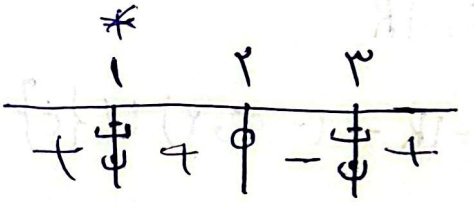
الف) $\frac{x^3-3x+2}{x-2} = \frac{(x-1)^2(x+2)}{x-2} \Rightarrow$



ب) $\frac{x^2-3x+2}{x^2-4x+3} = \frac{(x-2)(x-1)}{(x-3)(x-1)} \Rightarrow$



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الف) $\frac{x^4-x^2}{x^4+x^2+2} = \frac{x^2(x^2-1)}{x^2+x+2} \Rightarrow \frac{x^2(x-1)(x+1)}{x^2+x+2} \Rightarrow$

ب) $\frac{x^2+3x+2}{x^2+2x+1}$

زیرا دلتا منفی است پس صورت، مخرج همیشه مثبت اند.

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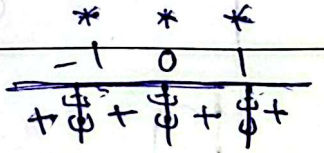
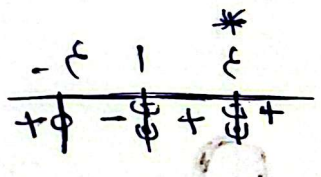
الف)



$D_f = (-\infty, -1) \cup (0, 1) \cup (1, +\infty)$

ب)



$D_f = (-\infty, -4] \cup (0, 4) \cup (4, +\infty)$