

الف، $y_1' = x_1^2 + x_1$, $y_2' = x_1^2 + x_2 \Rightarrow y_1' = y_2' = x_1 y_2$ ✓

ب. if $x=1 \Rightarrow y = \pm 3x$ ✓

$\frac{d}{dx} x^k = kx^{k-1} = 0 \Rightarrow 0 \text{ only } \Rightarrow x = \frac{k}{k-1}$
 if $x = 0 \Rightarrow y = 240,990$

if $x = 0 \Rightarrow y = 2 \vee 0, 9 \vee 0$ X

د الف $x^y - \varepsilon x = 0 \Rightarrow x^y = \varepsilon x \Rightarrow x = \varepsilon \Rightarrow D_f: \mathbb{R} - \{\varepsilon\}$ ✓

$D_f = 112$ دایره کوچکتری مساحت $\frac{1}{4}$ دایره بزرگتر

$D_F = 11R \checkmark \Rightarrow$ دہائی سطح یعنی اس میں اسے 11 بار دہائی

$$\Rightarrow x^E - \varepsilon x^Y = 0 \Rightarrow x^Y (x^Y - \varepsilon) = 0 \Rightarrow x^Y (x^Y + 1)(x^Y - 1) = 0$$

$$\Rightarrow D_f^0 = \mathbb{R} - \{0, -1, 1\}$$

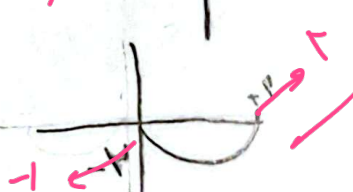
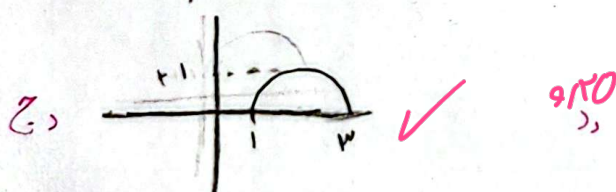
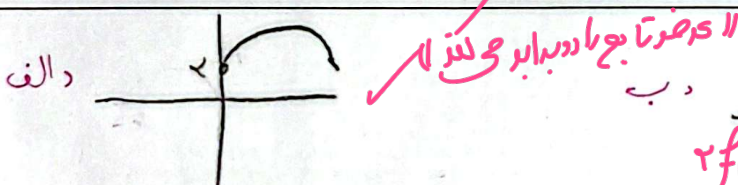
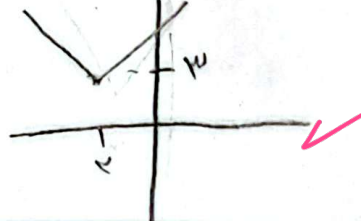
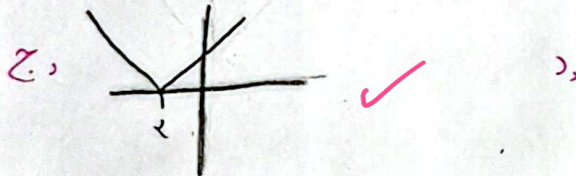
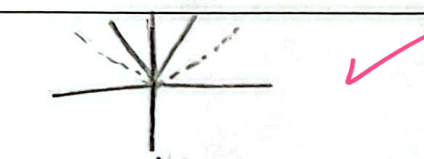
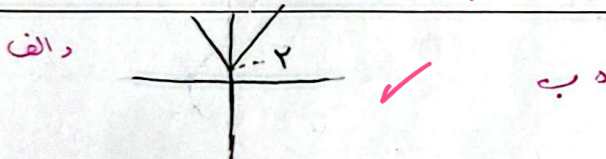
الف، $4-x \geq 0 \Rightarrow x \leq 4 \cup x-x \geq 0 \Rightarrow x \geq 4 \Rightarrow D_f = [4, 4]$ ✓

$\hookrightarrow \lambda^2 + 1 = 0 \Rightarrow \lambda^2 = -1 \Rightarrow D_f = \mathbb{R} \checkmark$

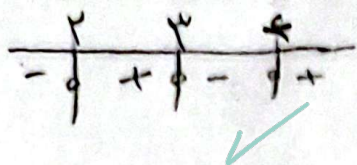
7. $x - \varepsilon = 0 \Rightarrow x = \varepsilon$, $x - \varepsilon \geq 0 \Rightarrow x \geq \varepsilon \Rightarrow D_f = [x, +\infty) - \{\varepsilon\}$

$$|x| + x^y = 0 \Rightarrow |x| = -x^y \Rightarrow D_f = \mathbb{R}$$

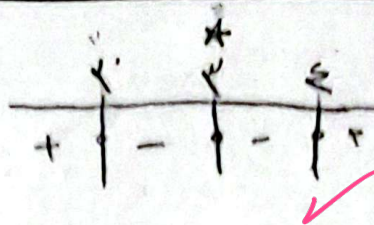
$$\hookrightarrow |x| + x^r \neq 0 \rightarrow x \neq 0 \rightarrow Df: \mathbb{R} - \{0\}$$



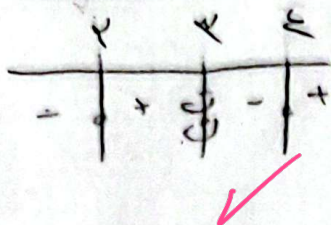
الف



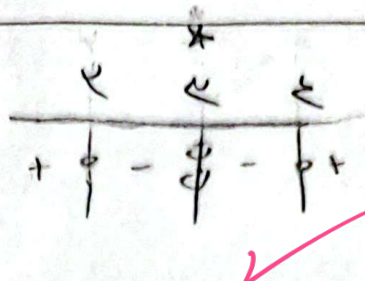
ب



الف



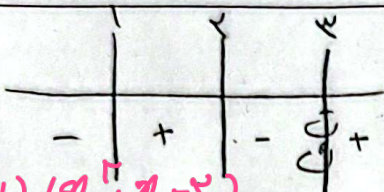
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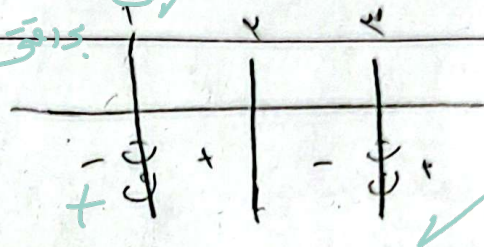
« بقیات صورت والات را بنویس »

بناوی

الف
0120



ب



$$(x-1)(x^2+x-2) \rightarrow$$

$$x-2$$

$$(x-1)^2(x+2)$$

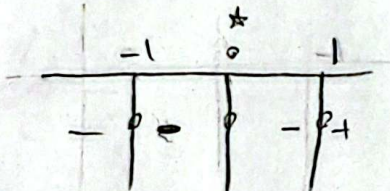
$$(x-2)(x-1)$$

$$(x-2)(x-1)$$

مع
صورت

$$x-2$$

الف



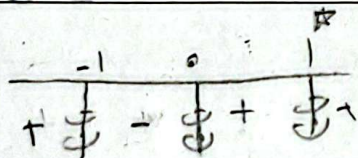
ب

در صورت مثبت

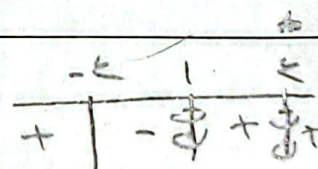
$$\frac{x^2(x^2-1)}{(x^2-1)}$$

$$\frac{\text{دشمنی مثبت}}{\text{دشمنی منفی}}$$

الف



ب



$$\frac{x^2-1}{x(x^2-1)}$$

$$P_f = (-\infty, -1) \cup (1, +\infty)$$

$$(1, 2) \cup (2, +\infty) \cup (-\infty, -1]$$

$$(0, 1) \cup (1, +\infty)$$

$$\frac{x^2-1}{(x-1)(x+1)}$$

$$\leq +1$$