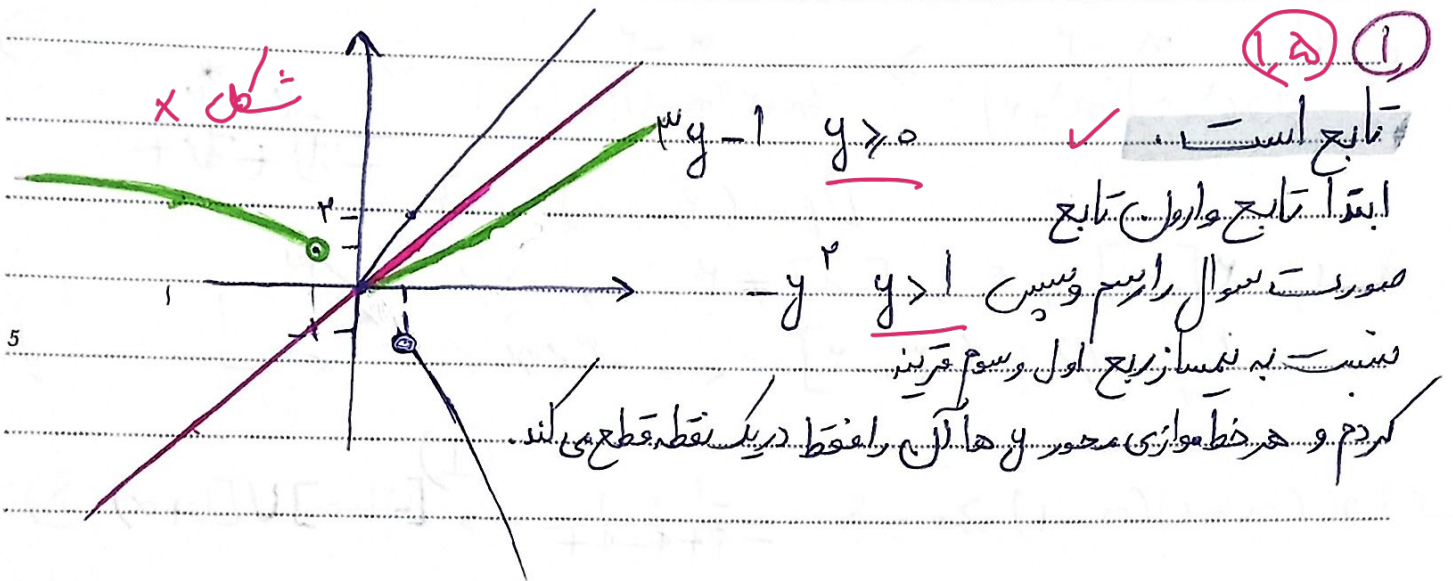


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۱۰

$$\frac{x f(n-2)}{f(n)} \gg 0 \rightarrow \frac{-4}{-} + \frac{-2}{-} - \frac{0}{-} + \frac{3}{+} - \frac{7}{+} +$$

$$Dg = (-4, -2] \cup [0, 3) \cup [7, +\infty)$$

فقط خواست باشد که $n=4$ در رافعه f و $n=4$ در رافعه f نیست که باز به دست آمده نیست

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$$x^3 - 6x \neq 0 \quad x(n+2)(n-2) \neq 0 \quad x \neq 0, 2, -2$$

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ا و $\Delta < 0$ و $a > 0$ → جواب مثبت

۱۴

$$\frac{2x^2 - 3x + 2}{x^3 - 6x} \gg 0 \rightarrow x(n+2)(n-2) > 0$$

$$Df = (-2, 0) \cup (2, +\infty)$$

(الف) $\frac{x-2}{(x^2-4)(x^2+2)} \geq 0 \rightarrow \frac{x-2}{(x+2)(x-2)(x^2+2)} \geq 0$ (r) (F)

$D_f = (-2, +\infty) - \{2\}$ ✓

$-2 \quad 2$
 $- \quad + \quad +$

(ب) $2[-x] \neq 4 \rightarrow [-x] \neq 2 \rightarrow 2x - x < 3$

$D_f = \mathbb{R} - (-3, -2]$ ✓ $-3 < x < -2$

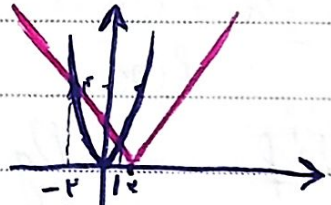
(الف) $x(x+1)(x-1) \geq 0 \rightarrow \frac{-1 \quad 0 \quad 1}{- \quad + \quad - \quad +} \rightarrow [-1, 0] \cup [1, +\infty)$ (I) (A)

$|x| + x > 0 \rightarrow x > 0$ (I) $\cap$ (I) $[1, +\infty)$ ✓ (r)

(ب) $|x-2| - x^2 \geq 0 \rightarrow |x-2| \geq x^2$

$\leftarrow$ $[-2, 1]$ $\leftarrow$ $\leftarrow$ $\leftarrow$

$|x| \neq 1 \rightarrow x \neq \underline{1} \underline{-1} \rightarrow D_f = [-2, 1) - \{-1\}$ ✓

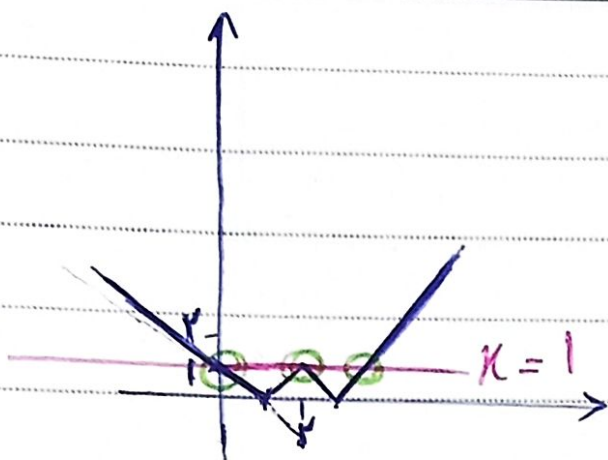


(الف) $(x-2)[x-2] \geq 0$ (F) (r)

$\hookrightarrow D_f = \mathbb{R}$ ✓

$2 \quad 2$
 $+ \quad - \quad 0 \quad +$

(ب) $\frac{1}{-} \frac{3}{-} \frac{2}{0} \frac{1}{+}$ $D_f = [3, +\infty) \cup \{1\}$ ✓



$$K=1 \checkmark$$

$$x^2 + 2x + 1 \neq 0 \rightarrow x \neq -1, -1$$

$$x + 1 \neq 0 \rightarrow x \neq -1$$

$$x - 1 \neq 0 \rightarrow x \neq 1 \quad D_f = \mathbb{R} - \{-1, -1, 1\} \quad \boxed{x=1} \checkmark$$

$$x^2 - 4x + 4 = 0 \rightarrow (x-2)^2 = 0 \rightarrow \boxed{x=2} \rightarrow \checkmark$$

$$\cancel{2x+1} \quad x+1 > 0 \rightarrow x > -1, x > 0, x \neq 1$$

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

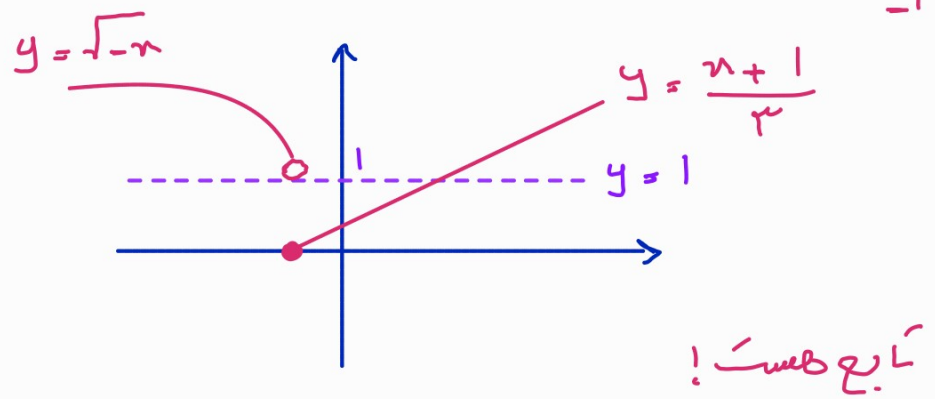
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$$-x^2 + 2x - 1 \leq 0 \rightarrow -x^2 + 2x - 1 \leq 0$$

$$\rightarrow x^2 - 2x + 1 \geq 0 \rightarrow x \in \left[\frac{-2}{2}, \frac{2}{2} \right] \checkmark$$

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$$y = \begin{cases} \frac{n+1}{n} & y \geq 0 \\ \sqrt{-n} & y > 1 \end{cases}$$



$$1) \quad n+1 > 0 \rightarrow n > -1, \quad n+1 \neq 1 \rightarrow n \neq 0$$

$$2) \quad n > 0, \quad n \neq 1$$

$$3) \quad \lg \frac{1}{n} > 0 \rightarrow 0 < n < 1$$

$$\Rightarrow D_f = (0, 1)$$