

نام و نام خانوادگی پاسبان پاسنامه تشریحی تکلیف شماره ۲ کلاس ~~۱۹۷۰~~

$$2x^2 + 4x^2 + 2x + 4x + k = 0$$

$$k = 1 + 1 + 4 = 6$$

$$(2^2 - 2x + 1) + (2^2 - 2x + 1) + (4^2 - 4x + 2) = 0$$

$$(2-1)^2 + (2-1)^2 + (4-2)^2 = 0$$

5

$$f(x) = \begin{cases} x^2 + 2x & x \geq a \\ 4x + a + 2 & x < a \end{cases}$$

$$f(1) = 0$$

در صورتی که

$$a^2 + 2a = 4a + a + 2$$

$$a^2 + a - 2 = 0$$

$$(a+1)(a-2) = 0$$

$$a = 1$$

$$a = 2$$

$$a = 2$$

4

$$f(x) = \begin{cases} x^2 + b & |x+1| \geq 2 \\ a + x & -2 \leq x < -1 \end{cases}$$

$$1 - b = a - 4$$

$$a + b = 2$$

$$|x+1| \geq 2 \rightarrow x+1 \geq 2 \rightarrow x \geq 1$$

$$|x+1| \leq -2 \rightarrow x+1 \leq -2 \rightarrow x \leq -3$$

5

$$y = \sqrt{4x-a} + \sqrt{b-4x}$$

$$\frac{b}{a} = \frac{1}{4}$$

$$4x - a \geq 0 \rightarrow 4x \geq a \rightarrow x \geq \frac{a}{4}$$

$$b - 4x \geq 0 \rightarrow 4x \leq b \rightarrow x \leq \frac{b}{4}$$

$$\frac{a}{4} \leq x \leq \frac{b}{4} \rightarrow \frac{b}{4} = \frac{a}{4} = \frac{1}{4}$$

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$$\sqrt{\frac{x+1}{|x-1|}} + \sqrt{\frac{4-x}{x^2+2x+2}}$$

$$4-x \geq 0$$

$$\sqrt{[x]-4} + \sqrt{4-[x]}$$

$$[x] \geq 4$$

$$x \geq 4$$

$$[x, +\infty)$$

$$(1)$$

$$x \leq 4$$

$$(-\infty, 4)$$

$$(2)$$

$$(1) \cap (2) = \emptyset$$

5

5

$$D_f = (-\infty, -r) \cup [-r, -1) \cup [1, r) \cup [r, \infty)$$

الف) $\frac{x^2 - x - 4}{x^2 - 10x^2 + 4}$ $(x-1)(x+1)$

$\Delta_F = \mathbb{R} - [-5, 1] - \{1\}$

$A^2 - 10A + 4 = 0$

$(A-1)(A-4) = 0$

$x = 1$ $x = 4$

$-r$ -1 1 r

$+ \phi - \phi - \phi + \phi +$

الف) $y = \sqrt{[-x] - r}$ $x < r$

$[-x] - r \geq 0$ $[-x] \geq r$ $-x \geq r$

$D_f = (-\infty, r]$

$\Delta_F = \mathbb{R} - (-\infty, 1) \cup [0, r) \cup [r, +\infty)$

$[x]^2 + 1[x] - r$

$([x] - r)([x] + 1)$

-1 0 r

$+ \phi - \phi + \phi +$

الف) $\frac{\cot x + 1}{\tan x + 1}$ $\cot x$

$\tan x \neq -1$

$D_f = \mathbb{R} - \left\{ \frac{k\pi}{r}, k\pi - \frac{\pi}{r} \right\}$

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الف) $\sqrt{r^2 x^2 - 1}$ $D_F = [1, \infty)$

$x^2 - 1 \geq 0$

$x^2 \geq 1$

$x \geq 1$ $x \leq -1$

$(x-1)(x+1)$

1 -1

$+ \phi - \phi + \phi +$

ب) $y = \left(\frac{x+0}{x+1} \right)!$

$\frac{x+0}{x+1} \in \mathbb{N}$

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$D_f = \left\{ x/x = \frac{x-1}{x-1} \right\}$