

پرنیای باقری / پاسخنامه تالیف ۷ / یازدهم دفتر A
 ۱۹/۷۵ آزمون به سه

$$f_x = \sqrt{(\sqrt{x-4} + 2)^2} = \sqrt{x-4} + 2$$

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$$g_x = \sqrt{(\sqrt{x-4} - 2)^2} = \sqrt{x-4} - 2$$

$$f_x + g_x = 2\sqrt{x-4} \Rightarrow a=0, b=2, c=(-4)$$

$$\frac{a+b}{c} = \frac{-1}{4}$$

$$f_x = \frac{x+2}{(x-1)(x-3)} \rightarrow x \neq 1, 3$$

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$$f_1 = -4, f_0 = \frac{2}{3} \Rightarrow \frac{g}{f} = \left\{ (2, \frac{-1}{4}), (0, 4) \right\}$$

$$f_{12} = \left\{ (\frac{1}{4}, 2), (\frac{3}{4}, -1), (2, 2), (-\frac{1}{4}, 4) \right\}$$

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$$f_{22} = \left\{ (1, 2), (-1, 2), (\sqrt{3}, -1), (-\sqrt{3}, -1), (2, 2), (-2, 2) \right\}$$

$$2g_x + 1 = \left\{ (-2, 4), (1, 3), (3, 4), (-1, 1) \right\}$$

$$\frac{2f}{g} = \left\{ (1, -4), (3, -1), (-1, 14) \right\}$$

$$\Rightarrow \left\{ (1, -4), (3, -1) \right\}$$

$$h = \tau^{\frac{1}{2}} \circ g = \{(1, \omega), (r, \omega), (-r, 4)\}$$

$$x \in \mathbb{Z} \sim g_x = -1 \sim g + 1 = 0 \sim \cup \cup$$

$$x \in \mathbb{Z} \sim g_x = 0 \sim g + 1 = 1 \checkmark$$

$$\sqrt{13}x \rightarrow x > 0$$

$$x \leq \sqrt{13}x \rightarrow 0 \leq x \leq r$$

$$x - r \neq 0 \rightarrow x \neq r$$

$$D \frac{d}{g+1} = \{0, 1, \mu\}$$

$$\omega x - x^2 - r > 0 \rightarrow 1 \leq x \leq r : D \neq$$

$$\frac{f_x}{g_x} = \{(1, 0), (r, \frac{\sqrt{r}}{r}), (r, 0)\}$$

$$\frac{f(r)}{g(r)} = \frac{\sqrt{1 - r - r}}{r} = \frac{\sqrt{r}}{r}$$

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$$\begin{aligned}
 \text{الف) } y &= x^3 - 3x^2 + 3x - 1 + 1 \\
 &= (x-1)(x^2+x+1) - 3x(x-1) + 1 = \\
 &1 + (x-1)(x-1)^2 = (x-1)^3 + 1
 \end{aligned}$$

$$y = (x-1)^3 + 1 \rightsquigarrow \sqrt[3]{y-1} + 1 = x$$

$$R_f = \mathbb{R}$$

$$\text{ب) } y = \frac{1}{x^2 - 2x} \rightarrow yx^2 - 2xy - 1 = 0$$

$$x = \frac{2y \pm \sqrt{4y^2 + 4y}}{2y}$$

$$y \neq 0$$

$$4y(y+1) \geq 0$$

$$y < -1, y > 0 \leftarrow$$

$$\Rightarrow R_f = (-\infty, -1] \cup (0, +\infty)$$

$$\text{ج) } y = x^2 - 5x + 1 \rightarrow \text{ext: } \begin{cases} \uparrow \\ \downarrow \end{cases}$$

min

$$R_f = [4, +\infty)$$

$$\text{د) } y = -x^2 + 4x + 3 \rightarrow \text{ext: } \begin{cases} \uparrow \\ \downarrow \end{cases}$$

max

$$R_f = (-\infty, 13]$$

$$\text{هـ) } y = \sqrt{x^2 - 5x - 3} \rightsquigarrow \text{ext: } \begin{cases} \uparrow \\ \downarrow \end{cases}$$

min

$$R_f = [0, +\infty)$$

$$\text{و) } y = \sqrt{4x - x^2} \rightsquigarrow \text{ext: } \begin{cases} \uparrow \\ \downarrow \end{cases}$$

max

$$R_f = [0, 2]$$

الف) $R_f = \mathbb{R}$

ب) $R_f = \mathbb{R}$

ج) $R_f = [0, +\infty)$

د) $R_f = [0, +\infty)$

الف) $y = \frac{x+1}{x-2} \rightarrow R_f = \mathbb{R} - \{2\}$

ب) $y = \frac{x+1}{x+1} \rightarrow R_f = \mathbb{R} - \{2\}$

$$Df \rightarrow \Delta n - n^r - \varepsilon \geq \cdot \rightarrow n^r - \Delta n + \varepsilon \leq \cdot \rightarrow 1 \leq n \leq \varepsilon$$

(9)

$$Df \cap Dg = \{1, \chi, \varepsilon\}$$

$$\frac{f}{g} = h = \left\{ (1, 0) \left(\chi, \sqrt{\frac{\chi}{r}} \right) (\varepsilon, 0) \right\}$$