

۱۹,۵ آذرین

(سین عباسی)

1 4 0 3
25 M a y
2 0 2 4

خرداد ماه
شنبه
۱۶ ذی القعدة ۱۴۴۵

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$$\sqrt{x-4} = t \quad \left\{ \begin{array}{l} f(x) = \sqrt{t^2+4+4t} \rightarrow \sqrt{(t+2)^2} \rightarrow |t+2| \\ x = t^2+4 \end{array} \right. \quad (1)$$

$$\sqrt{x-4} \geq 0 \rightarrow t \geq 0 \rightarrow 2$$

$$|t+2| \rightarrow t+2$$

$$f(x) = t+2$$

$$g(x) = \sqrt{(t-2)^2} = |t-2|$$

$$\sqrt{x-4} \geq 0 \rightarrow |t-2| \rightarrow t-2$$

$$f+g \rightarrow t+2+t-2 \rightarrow 2t \rightarrow 2\sqrt{x-4} \rightarrow \frac{a+b}{c} \rightarrow \frac{0}{-4} \rightarrow \sqrt{x+4}$$

$$\frac{a+b}{c} = \left(\frac{-1}{4} \right) \quad (2)$$

$$\begin{array}{l|l|l} f(x) \rightarrow \frac{1}{x} & f(0) \rightarrow \frac{1}{0} & f \cdot \frac{f^2}{\frac{1}{x}} = (4) \\ g(x) \rightarrow 1 & g(0) = 1 & \end{array} \quad (3)$$

$$\frac{g}{f} \Rightarrow \left\{ (0, 4) \text{ و } \left(\frac{1}{4}, -1 \right) \right\} \quad (4)$$

بنا بر اینست که f تابعی است

$$P_x = \left\{ \left(\frac{1}{4}, -1 \right), \left(\frac{1}{4}, 2 \right), \left(-\frac{1}{4}, 4 \right) \right\} \quad (5)$$

$$x^2 \leq \frac{1}{4} \rightarrow \left\{ (-2, 2), (-1, 1), (1, 1), (2, 2) \right\} \text{ و } (-\sqrt{3}, -1), (\sqrt{3}, -1) \quad (6)$$

$$x^2 = 3 \rightarrow x = \pm\sqrt{3}$$

س

ردیف	1	4	0	3
نام	26	M	a	y
تاریخ	2	0	2	4

ع) $g'(x) \rightarrow \{(-2, 19), (1, 5), (5, 9), (9, 1)\}$
 $g(x) = x^2$

د) $\frac{f}{g} \Rightarrow \{(1, -1) \text{ و } (5, -1)\}$

$g \Rightarrow 1, 5, 9, -1$

$g(x) = 1 \rightarrow f(x) = 1 \rightarrow h(x) = x(1) + 1 = 0$
 $g(x) = 5 \rightarrow h(x) = x(5) + 1 = 0$

$g(x) = 9 \rightarrow f(x) = 9 \rightarrow h(x) = x(9) + 1 = 0$
 $g(x) = -1 \rightarrow h(x) = x(-1) + 1 = 0$

$g(x) = 1 \rightarrow f(x) = 1 \rightarrow h(x) = x(1) + 1 = 0$
 $g(x) = 5 \rightarrow f(x) = 5 \rightarrow h(x) = x(5) + 1 = 0$

$f(x) = \sqrt{x} \rightarrow g(x) = \sqrt{x} \rightarrow h(x) = x(\sqrt{x}) + 1 = 0$

$g(x) = 1 \rightarrow x \rightarrow h(x) = x(1) + 1 = 0$

$g(x) = 5 \rightarrow x \rightarrow h(x) = x(5) + 1 = 0$

$g(x) = 9 \rightarrow x \rightarrow h(x) = x(9) + 1 = 0$

$g(x) = -1 \rightarrow x \rightarrow h(x) = x(-1) + 1 = 0$

$g(x) = 1 \rightarrow x \rightarrow h(x) = x(1) + 1 = 0$

ویدیو خانم زینب زاهدی

~~g~~ $g \rightarrow 1, \sqrt{2}, \sqrt{3}$ (4)

مثال

① $\rightarrow f(x) = 0$

$f(1) = e$

$f(x) = \sqrt{x}$

$f(x) = \sqrt{x}$
 $\sqrt{x}$

$h = \{(1,0), (2, \sqrt{2}), (3, \sqrt{3})\}$ B

ع) $x^r - r x^{r-1} + r x \rightarrow (n-1)^r + 1$ V $(V^{1/2})$

$f = (n-1)^r + 1 \rightarrow x_1^r = R$

ب) $\frac{1}{x^r - r x^{r-1} + r x} \rightarrow \frac{1}{(n-1)^r + 1}$ V

$x_1 x_0 \rightarrow x_1 x_0 - r x_1 x_0 - 1 = 0 \rightarrow x_1 x_0 - r x_1 x_0 - 1 = 0$

$x_1(x_0+1) x_0 \rightarrow x_1(x_0+1) x_0$

$\Delta = x_1^r + x_1 x_0$ B

$+ \frac{1}{1-x_1} + \frac{1}{1-x_0} \rightarrow (-\infty, -1] \cup (1, \infty)$

ع) $\frac{-b}{2a} = \frac{r}{2}$

$(r)^r = x(r+1) = r^r$

$\rightarrow (y, y, \infty)$ V

$\frac{-b}{2a} = r$ $(r)^r = x(r+1) + r^r = -9 + 18 + 1 = 10$ V $[-\infty, 10]$

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خرداد ماه ۱۴۴۵
سه شنبه ۲۸ م
۱۹ ذی القعدة ۱۴۴۵

1 4 0 3
28 M a y
2 0 2 4

$a > 0$

$$x^2 - 5x - 2 > 0 \rightarrow [0, +\infty)$$

ج) $\frac{-b}{2a} \rightarrow \beta \rightarrow f(x) = -V \rightarrow \infty$

د) $4x - x^2 \rightarrow \frac{-b}{2a} \rightarrow 2 \rightarrow f(x) \rightarrow 9 \rightarrow [0, 3]$

الف) $\checkmark R$

(9

ب) $\checkmark R$

ج) $\checkmark [0, +\infty)$

د) $\checkmark R [0, +\infty)$

الف) $R - \{3\}$

(6

ب) $R - \{4\}$

$$f(x) = \left\{ \left(\frac{1}{x}, 2 \right) \left(\frac{x}{4}, -1 \right) (2, 2) \left(-\frac{1}{x}, 4 \right) \right\} \quad \text{۳} \quad x \text{ های } f \text{ باید حقیق باشند!}$$

$$f(x) = \left\{ (1, 2) (-1, 2) (\sqrt{3}, -1) (-\sqrt{3}, -1) (2, 2) (-2, 2) \right\} \quad \text{هر کدام از } x \text{ های } f \text{ را برابر } x^2 \text{ قرار دهیم!}$$

$$g(x) + 1 = \left\{ (-2, 19) (1, 3) (3, 9) (-1, 1) \right\} \quad \text{این عمل روی } y \text{ های } g \text{ اعمال می شود:}$$

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