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تالیف

حسینی رضایی - یازدهم دضریح

اردیبهشت ۱۴۰۴

8 الف $\{ (3, 2), (n, 3), (3, n^2 - n), (m, 2), (-1, 4) \}$

①

9 $n^2 - n = 2 \rightarrow n^2 - n - 2 = 0$
 $(n-2)(n+1) = 0 \rightarrow n = 2$ (مورد اول)
 $n = -1$ (مورد دوم) $\rightarrow m = 3$

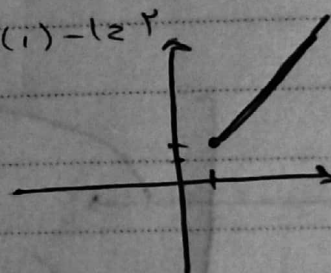
10 ج $\{ (-1, 1), (1, 2), (2, 3), (a, m-1), (a+2, n) \}$

$m = 2 \rightarrow (a, 1)$

$a = -1 \rightarrow (1, n) \rightarrow n = 2$

11 $f(x) = \begin{cases} x-1 & x \geq 1 \\ x+a & x < 1 \end{cases}$

$x=1 \rightarrow f(1) = 1-2 = -1$



②

$x \geq 1 \rightarrow x+a < 2 \rightarrow a < 1$
 $x = 1 \rightarrow 2$

$f(x) = \begin{cases} x-1 & x \geq 1 \\ x+a-1 & x < 1 \end{cases}$

③

10

$x=0 \rightarrow f(0) = a-1 \rightarrow a-1 < 2 \rightarrow a < 3$

④

11 $a > 0$

$0 < a < 3$

استاد مرتضی مطهری (1358 هـ ش) - روز معلم

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$$y = x^3 + 2$$

$$y_1 = y_2 \rightarrow x_1 = x_2$$

$$x_1^3 + 2 = x_2^3 + 2 \rightarrow x_1 = x_2$$



Ⓚ

ذی القعدة ۱۴۴۶

$$f^{-1}(x) =$$

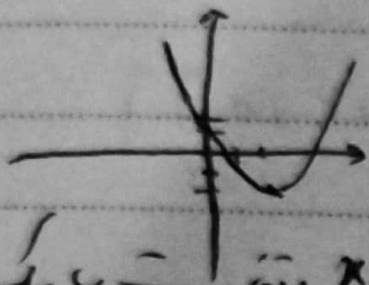
$$x = y^3 + 2$$

$$y^3 = x - 2$$

$$f^{-1}(x) = \sqrt[3]{x-2}$$

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$$y = x^2 - 4x + 2$$



$$y_1 = y_2 \rightarrow x_1 = \pm x_2$$

~~$$x_1 = x_2$$~~

$$x$$

سهی است

میزای درختی و یک میوه

۱۲ یکشنبه

04 May 2025

اردیبهشت ۱۴۰۴ -

٦ ذى القعدة ١٤٤٦

③

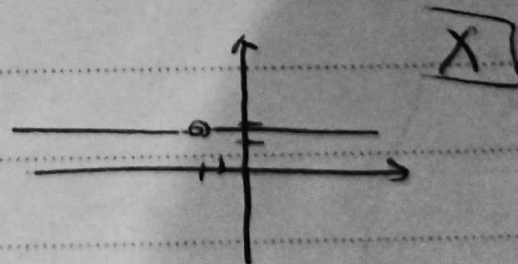
8

الف) $y_2 = \frac{r_{n+1}}{n-2}$ → $\frac{1}{\sqrt{n}}$

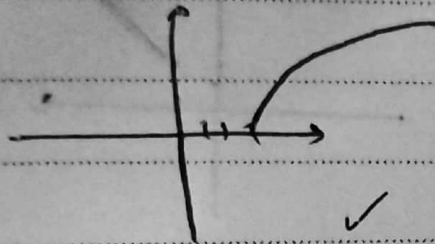
9 $x_2 \xrightarrow{y-r} u_{y-k_2} \xrightarrow{y+1}$

$$y_{n-k, 2}^{n+1} \rightarrow y_{n-k}^{n+1} = d^{-1}(n)$$

$$10 \rightarrow y = \frac{\kappa + \ln}{n+r} \rightarrow \frac{r(n+r)}{n+r} = r \quad n \neq -r$$



الف) $y = \sqrt{n-2}$

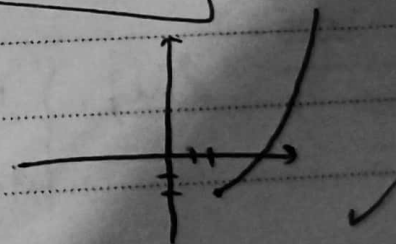


$$n = \sqrt{y-2} \rightarrow n^2 = y-2 \rightarrow y = n^2 + 2$$

$$f^{-1}(n) = n^2 + 2, n \geq 0$$

$\Rightarrow y = n^2 - (n+2) \quad n \in [2, +\infty)$

نقطه: $(2, -2)$



$y = (n-2)^2 - 1 \rightarrow$ ~~$n = \sqrt{y+1} + 2$~~

$$n = (y-2)^2 - 1 \rightarrow n+1 = (y-2)^2 \rightarrow y-2 = \sqrt{n+1}$$

$$f^{-1}(n) = 2 + \sqrt{n+1}$$

⊖
غیر قابل

روز تحلیل از امام زادگان و یقاع متبرکه

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$$y = n + \sqrt{n} \quad y_2 \left(\sqrt{n} + \frac{1}{r} \right)^r - \frac{1}{n^{\frac{1}{r}}}$$

$$n_2 \left(\sqrt{y} + \frac{1}{r} \right)^r - \frac{1}{n^{\frac{1}{r}}}$$

$$\pm \sqrt{n + \frac{1}{r}} \quad z \sqrt{y + \frac{1}{r}}$$

⑤

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$$y = n + \frac{1}{r} + \frac{1}{n} - \sqrt{n + \frac{1}{r}}$$

$$f^{-1}(n) = n + \frac{1}{r} - \sqrt{n + \frac{1}{r}}$$

$$a_2 = 1 \quad b_2 = \frac{1}{r} \quad c_2 = -\frac{1}{n^{\frac{1}{r}}}$$

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$$1 + \frac{1}{r} - \frac{1}{n} = \frac{1}{n^{\frac{1}{r}}} \quad \frac{1}{n^{\frac{1}{r}}} = \frac{1}{n^{\frac{1}{r}}}$$

⑤

اردیبهشت ۲۰

$$\frac{n_1}{\sqrt{n_1^2 - 2}} \approx \frac{n_2}{\sqrt{n_2^2 - 2}}$$

$$\frac{n_1^2}{n_1^2 - 2} \approx \frac{n_2^2}{n_2^2 - 2}$$

$$n_1^2 n_2^2 - 2 n_1^2 \approx n_2^2 n_1^2 - 2 n_2^2$$

$$\rightarrow n_1 \approx n_2 \quad \checkmark$$

$$y = \frac{n}{\sqrt{n^2 - 2}}$$

$$x = \frac{y}{\sqrt{y^2 - 2}}$$

$$\frac{n^2}{y^2 - 2} \rightarrow y = \frac{n}{\sqrt{n^2 - 1}}$$

$$n^2 y^2 - 2 n^2 \rightarrow y = \frac{n}{\sqrt{n^2 - 1}}$$

$$\rightarrow y = \frac{\sqrt{2} n}{\sqrt{n^2 - 1}}$$

$$f(n) = \frac{n}{\ln n}$$

$$g(n) = \sqrt{n} - 1 \quad f\left(-\frac{1}{\omega}\right) + g\left(-\frac{1}{\omega}\right) \quad \textcircled{9}$$

$$\sqrt{n} - 1 = -\frac{1}{\omega} \rightarrow \sqrt{n} = \frac{1}{\omega}, \quad n = \frac{1}{\omega^2}$$

$$-\frac{1}{\omega} = \frac{n}{\ln n}$$

$$\Delta n = 2 - 2 \ln n \rightarrow \Delta n = 2 + \ln n$$

$$f(n) = 2 \rightarrow n = \frac{1}{\omega^2}$$

$$-\frac{1}{\omega} + \frac{1}{\omega} = -\frac{2}{\omega}$$

$$f'(n) = \frac{1}{\sqrt{n-1}}$$

$$y = \sqrt{n-1} \rightarrow n = y^2 + 1$$

$$n^2 y - 1 \rightarrow n^2 + 1 = 2 \quad \textcircled{5}$$

$$g(n) = f(n) + \sqrt{f(n)}$$

$$g'(n) \rightarrow g(n) = f(n) + \sqrt{f(n)} = 1$$

$$f(n) = 9 \quad n^2 + 1 = 9 \rightarrow n = 2$$

روز برگزاری شیخ صلوات

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