

کل نوات = جابان ریاضی
 بخش آموزش برون

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$$f(n) = (n-2) \sqrt{n+3}$$

$$\lim_{h \rightarrow 0} \frac{f(0-h) - f(0-h) + r}{h(0-h)}$$

$$f(0) = 2$$

$$f'(n) = \frac{1}{\sqrt{n+3}} + (n-2) \times \frac{1}{2\sqrt{n+3}}$$

$$f'(0) = 2 + \frac{1}{2 \times 3} = \frac{13}{6}$$

$$\lim_{h \rightarrow 0} \frac{-2f(0-h) + f'(0-h) + r}{0-2h}$$

$$= \frac{-2f(0)f'(0) + r f'(0)}{0}$$

$$= \frac{-2 \times 2 \times \frac{13}{6} + 2 \times \frac{13}{6}}{0} = \frac{-\frac{26}{3} + \frac{26}{3}}{0} = \frac{0}{0}$$

$$f'(2) = f'(-1) = \frac{r}{r} \quad r=0$$

$$g(n) = f(n+1) + f(rn+1)$$

$$g'(n) = f'(n+1) + r f'(rn+1)$$

$$g'(-1) = f'(-1) + r f'(2)$$

$$= \frac{r}{r} + r \times \frac{r}{r} = r \times \frac{r}{r} = r$$

$$A|_{-1}^{-1} \rightarrow 1 + ra + b = 1$$

$$ra + b = 0$$

$$y' = -rn^c + 4an = 0$$

$$y'(-1) = -r - 4a = 0$$

$$a = -\frac{1}{4}, b = \frac{r}{4}$$

$$\frac{b}{a} = -r$$

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اگر اشتباهی بود به با بودی خود
 بخشید

$$a=r \rightarrow y = \frac{rn+c}{rn+1}$$

$$n = -\frac{c}{r}$$

$$\frac{-(a-1)}{a+1} = -\frac{1}{2} \quad y' = \frac{1}{n+1}$$

$$\frac{a}{a+1} \quad n = -\frac{1}{2}$$

$$ra - r = a + 1 \rightarrow ra = r$$

$$a = 1$$

عدد صحیحی ۹۱۵۳۲.۹۴۷

حل سوال = حسابان رسته ریاضی
مختص آموزش مدرسه

① (11r

$$f(n) = a \cos(bn + c)$$

$$|a| = \frac{1}{\epsilon} \rightarrow a = \frac{1}{\epsilon}$$

$$r = \frac{r\pi}{|b|} \rightarrow b = \pi$$

$$\frac{1}{\epsilon} \rightarrow \cos\left(\frac{0\pi}{\epsilon} + b\right) = 1$$

$$\frac{0\pi}{\epsilon} + b = \frac{r\pi}{\epsilon}$$

$$b = -\frac{0\pi}{\epsilon} + \frac{r\pi}{\epsilon} = \frac{\pi}{\epsilon}$$

$$\frac{ac}{b} = \frac{\frac{1}{\epsilon} \times \frac{\pi}{\epsilon}}{\pi} = \frac{1}{19}$$

$$L: \frac{\sqrt{r_n + r} - \sqrt{r_{n+1}}}{1 + \sqrt{n}} = \text{② (110)}$$

$$\text{نور } L: \frac{\frac{r}{\sqrt{r_n + r}} - \frac{r}{\sqrt{r_{n+1}}}}{\frac{1}{\sqrt{n+1}}}$$

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

$$\hat{A} = r\theta + \hat{B} \quad r (11r$$

$$\hat{C} = 1r\theta - r\hat{B}$$

$$r(\cos A \sin B - \sin C)$$

$$r(\cos(r\theta + B) \sin B - \sin(1r\theta - rB))$$

$$r\left(\frac{\sqrt{r}}{\epsilon} \cos B - \frac{\sqrt{r}}{\epsilon} \sin B\right) \sin B - \left(\frac{\sqrt{r}}{\epsilon} \cos rB - \frac{\sqrt{r}}{\epsilon} \sin rB\right)$$

$$= \sqrt{r} \cos B \sin B - \sqrt{r} \sin^2 B - \frac{\sqrt{r}}{\epsilon} (1 - r \sin B) - \frac{\sqrt{r}}{\epsilon} \sin B$$

$$= \frac{\sqrt{r}}{\epsilon}$$

$$\sin(n + \frac{\pi}{2}) = \sin \frac{\pi}{\epsilon} \quad \text{③ (11r}$$

$$n + \frac{\pi}{2} = r\pi + \frac{\pi}{\epsilon} \rightarrow n = r\pi - \frac{\pi}{\epsilon}$$

$$n + \frac{\pi}{2} = r\pi + \frac{\pi}{\epsilon} \rightarrow n = r\pi + \frac{\pi}{\epsilon}$$

k	0
n	$\frac{0\pi}{1r}$

$$S = \frac{r\pi}{1r} = \frac{9\pi}{r}$$

k	0	1
n	$-\frac{\pi}{1r}$	$\frac{r\pi}{1r}$

$$\rightarrow n = r\pi + \frac{0\pi}{1r}$$

۰۹۱۲۳۲۹۴۷. سید حسینی

حل نواله حایان رسته ریاضی

متخصص آموزش مدرسه

$$\frac{ra^r}{a^r-1} = r \rightarrow a^r - a^r - 1 = 0$$

$$a^r = \frac{1 \pm \sqrt{0}}{r}$$

$$\left(\frac{ra^r + r}{(a^r + 1)^r - a^r} \right)^{1/r} = 1$$

$$\left(\frac{r(a^r + 1)}{a^r + a^r + 1} \right)^{1/r} = 1$$

$n + y = a$ $A|n$ $B|a-n$ (1) 1.9

$B| -r$ $C| -1$

$AB = \sqrt{r^2 9} \rightarrow \sqrt{(n+r)^r + (a-n-r)^r} = \sqrt{r^2 9}$

$Ac = 0 \rightarrow \sqrt{(n+1)^r + (a-n-r)^r} = 0$

$(n+r)^r - (n+1)^r + (a-n-r)^r - (a-n-r)^r = r$

$r(n+r) + r(a-n-r) = r$

$ra - r = r \rightarrow a = r$

$0^n = 1 \rightarrow n = \log_0 1 \rightarrow \log_0 0 = \frac{1}{n}$

$r^{f(n)} = r \rightarrow f(n) = \log_r r = 1 + \frac{1}{\log_r r} = 1 + \frac{1}{1 - \frac{1}{n}} = 1 + \frac{n}{n-1} = \frac{2n-1}{n-1}$ (3) (1111)

$n^r + 4n + a = 0 \rightarrow \begin{cases} q = -4 \\ p = a \end{cases}$ (1) 1.6

$ra^r + rB^r = 12\sqrt{r} + 10$

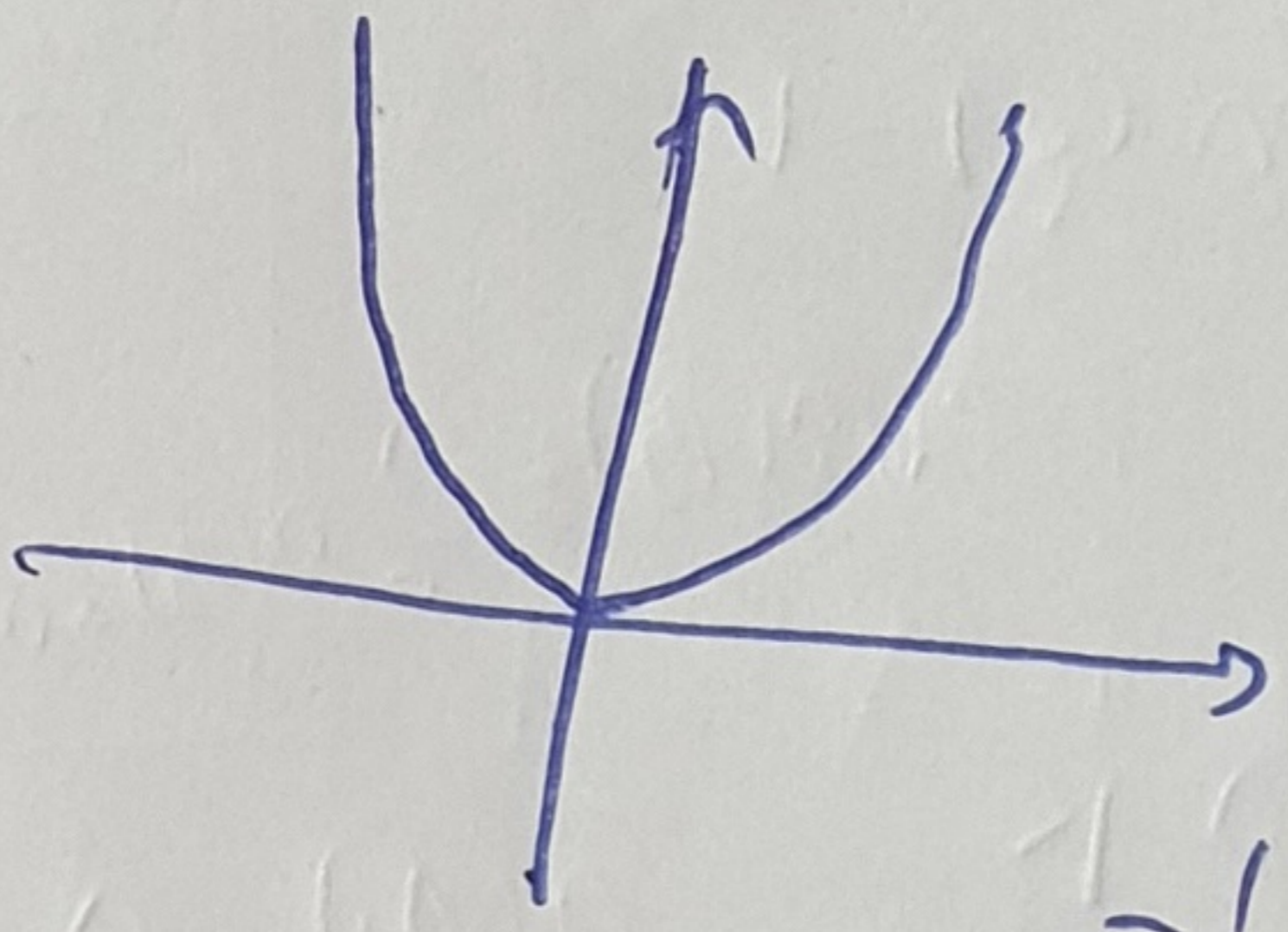
$a^r + r(q^r - rp) = 12\sqrt{r} + 10$

$9 + 9 - a + 4\sqrt{9-a} + r(34 - 2a) = 12\sqrt{r} + 10$

$9 - a + 4\sqrt{9-a} = 12\sqrt{r} + 10$

$a = 1 \rightarrow 10 + 12\sqrt{r} = 12\sqrt{r} + 10$ ✓

$y = n^r |n| = \begin{cases} n^r & n \geq 0 \\ -n^r & n < 0 \end{cases}$ (1.1) (2)



$y = -n^r$ $n \leq 0$ $y \geq 0$

$f^{-1} = \sqrt{-n}$ $-\sqrt{n}$ $n \geq 0$

$f(f(f(r))) =$ (3) (11)

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

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

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

(۱۱۷) (۴)

$$P(-r) = 0 \rightarrow (-r)^{n+1} + (-r)^n + 4r(-r)^n + 4r^2(-r)^n + 14r^3(-r)^n = 0$$

$$14r = 3r \rightarrow a = r$$

$$P(1) = 1 + 1 + 1 + 1 + 14 = 39$$

$$-5n + 39 = 0 \rightarrow n = 7.8$$

(۱۱۸) (۴)

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۱۹۲، ۳۸۴، ۷۶۸، ۱۵۳۶

$$\bar{n} = \frac{1 + 2 + 3 + 4 + \dots + n}{n} = \frac{1}{2}(n+1)$$

$$2 \times 4 = 8$$

$$1, 2, 3, 4, 4 \times 2, 4 \times 2^2, \dots \rightarrow a_{14} = 4 \times 2^{13}$$

(۱۱۹) (۳)

$$y = \begin{cases} |n| + [-n] & -1 < n < 1 \\ 1 + \cos \pi n & n = -1, 0, 1 \\ [n^2] - [n] & n > 1 \text{ یا } n < -1 \end{cases}$$

$$\begin{cases} n \rightarrow 0^+ : l_1 = -1 \\ n \rightarrow 0^- : l_2 = 0 \\ f(0) = 2 \end{cases} \rightarrow l_1 \neq l_2 \text{ در } n=0 \text{ انتقال}$$

$$\begin{cases} n \rightarrow 1^+ : l_1 = 0 \\ n \rightarrow 1^- : l_2 = 1 + (-1) = 0 \\ f(1) = 0 \end{cases} \rightarrow \text{در } n=1 \text{ پیوسته است}$$

$$\begin{cases} n \rightarrow (-1)^+ : l_1 = 1 + 0 = 1 \\ n \rightarrow (-1)^- : l_2 = 1 - (-1) = 2 \\ f(-1) = 0 \end{cases} \rightarrow \text{در } n=-1 \text{ انتقال}$$

$f(x) = 0$ از $k \in \mathbb{Z}$ کمتر انتقال دارد

$f(x) = \sin x + \frac{1}{c} \cos x$ (۱۲) (۳)

$$g(x) = \frac{r}{c} \sin x \rightarrow \frac{1}{c} \cos x = \frac{1}{c} h$$

$$u = \frac{\pi}{c}$$

$$y = \frac{r\sqrt{r}}{c}$$

$$y' = \cos u - \frac{1}{c} h u$$

$$y'(\frac{\pi}{c}) = m = \frac{\sqrt{r}}{c} - \frac{r}{c} = \frac{r}{c}$$

$$y - \frac{r\sqrt{r}}{c} = \frac{r}{c} (x - \frac{\pi}{c}) \xrightarrow{y=0} x = \frac{\pi}{c} - r$$

$\begin{cases} n \rightarrow +\infty : y = |a| + r \\ n \rightarrow -\infty : y = \frac{|a| + r}{-1} \end{cases}$ (۱۱۹) (۳)

$$y \rightarrow \pm \infty : n = \pm b$$

$$|a| + r = b$$

$$\lim_{n \rightarrow \pm \infty} f(n) = \frac{|a| + |1| + r}{1 + b}$$

$$\frac{|a| + |1| + r}{1 + |a| + r} = \begin{cases} 1 & a > 0 \\ \frac{a+r}{c-a} & -ka < a < ka \\ \frac{1-a}{c-a} & a < 0 \end{cases}$$

حل مسائل حسابان ریاضی

سید محمدتاج ۰۹۱۲۳۲۹۴۷۰

ریاضی مخصوص آموزش سران

m >

(1.2)

$$-\frac{\Delta'}{a} = 2 \rightarrow -\frac{(24 - 4m^2 + m)}{m} = 2$$

$$4m^2 - m - 24 = 2m$$

$$4m^2 - 3m - 24 = 0$$

$$(m - 3)(4m + 12) = 0 \rightarrow m = 3$$

محورهای ۰، ۱
 $y' = 4x - 12 = 0 \rightarrow x = 3$

$$\frac{a_1 = 1}{q = 2} \rightarrow 1, 2, 4, 8, 16$$

$$\frac{a_1 = 1}{q = 3} \rightarrow 1, 3, 9, 27, 81$$

$$\frac{a_1 = 2}{q = 2} \rightarrow 2, 4, 8, 16, 32$$

$$\frac{a_1 = 3}{q = 2} \rightarrow 3, 6, 12, 24, 48$$

$$\frac{a_1 = 4}{q = 2} \rightarrow 4, 8, 16, 32, 64$$

$$\frac{a_1 = 0}{q = 2} \rightarrow 0, 1, 2, 4, 8$$

$$\frac{a_1 = 4}{q = 2} \rightarrow 4, 12, 24, 48, 96$$

(1.1)

67

(1.3)

$$n(C) = n(A) + r \rightarrow n(A) = 1$$

$$n(D) = n(B) - r \rightarrow n(C) = 1$$

$$n(A \times B) = k \rightarrow n(A) \cap n(B) = \frac{0}{k} n(C)$$

$$n(B \times C) = k + \frac{1}{k} k = \frac{5}{k} k$$

$$n(A) = \frac{0}{k} n(C)$$

$$n(B \times C) = 1, 0 \quad n(A \cap D)$$

$$n(B) \times 1 = 1, 0 \quad n(A \times n(D))$$

$$n(D) = \frac{0}{4} n(B) \quad (r)$$

$$n(B) = 11, n(D) = 10$$

$$n(B) - n(A) = 11 - 1 = 10$$

$$A' \cup (B \cap A) = A' \cup B$$

$$(A' \cup B) \cap (A' \cup A) = A' \cup B$$

$$= (A \cap B)' = (A - B)'$$

$$(p \vee q) \Leftrightarrow q \quad (1.0)$$

p	q	p ∨ q	(p ∨ q) ⇔ q
ن	>	>	>
ن	ن	ن	>
>	>	>	>
>	ن	>	ن

(1.4)

→ p ∨ q