

Subject: _____

Date _____

صفحه ۲

امیدوارم حجت بشود

حساب ۱۴۰۲

دانش ۳: بر مبنای طیف بردار و مقادیر ویژه، معادله B را حل کنید.

$$a - 2 > 0$$

$$\rightarrow a > 2 \rightarrow B(1, 1), A(9, 1)$$

$$v - 2a > 0$$

$$\lambda_5 = \frac{9+1}{2} = 5 \rightarrow \text{دانش ۳: } S(5, 3)$$

$$y = a(x-5)^2 + 3 \rightarrow 1 = a(1-5)^2 + 3 \rightarrow a = -\frac{1}{8}$$

$$x=0 \rightarrow y = -\frac{1}{8}(0-5)^2 + 3 = -\frac{25}{8} + 3 = -\frac{1}{8}$$

$$\rightarrow \text{مقدار } \left| -\frac{1}{8} \right| = \frac{1}{8}$$

$$\log \varepsilon = \frac{1}{a+1} = \frac{1}{\frac{b}{\varepsilon a}} = \frac{\varepsilon a}{b} \rightarrow \frac{\varepsilon a}{b} = \log \varepsilon$$

$$\rightarrow b = \frac{\varepsilon a}{\log \varepsilon}$$

$$a = \frac{b+c}{2} \rightarrow c = 2a - b = 2a - \frac{\varepsilon a}{\log \varepsilon} = 2a \left(1 - \frac{\varepsilon}{\log \varepsilon} \right)$$

$$\rightarrow \frac{c}{a} = 2 \left(1 - \frac{\varepsilon}{\log \varepsilon} \right) = 2 \left(1 - \frac{\varepsilon}{2 \log 2} \right) = 2 - \frac{\log 2}{\log \varepsilon}$$

$$\rightarrow \frac{c}{a} = 2 - \frac{\log 2}{\log \varepsilon} \rightarrow \frac{1}{\sqrt{\varepsilon}} \times (\sqrt{2})^{\log 2} = \frac{1}{\sqrt{\varepsilon}} \times 1.414 = \frac{\sqrt{2}}{\sqrt{\varepsilon}} = \sqrt{2} \Rightarrow \varepsilon = 2$$

$$\lambda_5 = \frac{1}{2} \rightarrow \left(\frac{1}{2}, 0 \right) \rightarrow \frac{1}{\varepsilon} - \frac{1}{\varepsilon} + a = 0 \rightarrow a = \frac{1}{\varepsilon}$$

$$\Sigma n^2 = \lambda^2 - \lambda + \frac{1}{\varepsilon} \rightarrow \lambda^2 - \lambda + \frac{1}{\varepsilon} = 0 \rightarrow \lambda = \frac{1 \pm \sqrt{1 - \frac{4}{\varepsilon}}}{2} = \frac{1 \pm \sqrt{\frac{\varepsilon - 4}{\varepsilon}}}{2} \rightarrow \lambda = \frac{\varepsilon - 4}{\varepsilon}$$

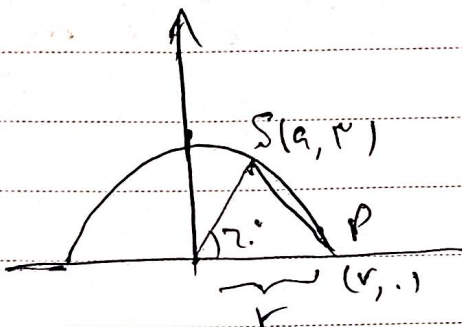
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حاج ۱۴۴

امیدوارم قبول شود

۳۳۰



$$\begin{cases} a = r \cos \alpha \rightarrow \frac{r}{r} = \sqrt{r} \\ r = r \sin \alpha \rightarrow r = r \times \frac{\sqrt{r}}{r} \rightarrow r = \sqrt{r} \end{cases}$$

$$\frac{a}{r} = \cos \alpha = \frac{\sqrt{r}}{r} \Rightarrow a = \sqrt{r}$$

۱- نتیجه

$$f(-1) = 19$$

$$g(-1) = 1 \rightarrow (f \circ g)(-1) = f(g(-1)) = f(1) = 9$$

۹- نتیجه

$$f(f(a)) = a \rightarrow f^{-1}(a) = f(a) \rightarrow f(a) = a \quad \text{خطای حل}$$

۱- نتیجه

$$2a - a\sqrt{a} = 2\sqrt{a+1} = a \rightarrow 2a - a\sqrt{a} = 2\sqrt{a+1}$$

$$\rightarrow 2(a+1) = \sqrt{a}(a+1) \quad \begin{cases} a = -2 \times \\ \sqrt{a} = 2 \rightarrow a = 4 \checkmark \end{cases}$$

$$f(a-4) = f(2-4) = f(-2) = (2 \times 2 - 2 \times 2 + 1) = 1$$

$$2 \rightarrow -\frac{1}{r} \rightarrow -\frac{1}{r}a + b = 0 \rightarrow b = \frac{a}{r}$$

۱۱- نتیجه

$$g(\Sigma a + b) = r \rightarrow \Sigma a + b = \Sigma a + \frac{a}{r} = 9 \rightarrow \frac{9a}{r} = 9 \rightarrow a = r$$

$$b = \frac{a}{r} \rightarrow b = 1$$

$$r_{n+1} = \frac{1}{q} \rightarrow r_n = -\frac{1}{q} \rightarrow r = -\frac{1}{q}$$

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Σ 120

المركب

$$(1 + \cos \alpha) \left(-\frac{1}{\sin \alpha} + \frac{\cos \alpha}{\sin \alpha} \right)$$

12 - فترت 1

$$(1 + \cos \alpha) \frac{(\cos \alpha - 1)}{\sin \alpha} = \frac{-\sin^2 \alpha}{\sin \alpha} = -\sin \alpha$$

$$\tan(\alpha + \frac{\pi}{2}) = \frac{\sqrt{r}}{\epsilon} \rightarrow \tan \alpha = \frac{\sqrt{r}}{\epsilon} \quad (1)$$

13 - فترت 1

$$\cot(\pi - \alpha) = \cot y \xrightarrow{(1)} \pi + y = \pi \rightarrow \tan(\pi + y) = \tan \pi = \frac{\sqrt{r}}{\pi}$$

$$\Rightarrow \frac{\frac{\sqrt{r}}{\epsilon} + \tan y}{1 - \frac{\sqrt{r}}{\epsilon} \tan y} = \frac{\sqrt{r}}{\pi} \xrightarrow{\text{مضروبين}} \frac{\epsilon}{\pi} \tan y = \frac{\sqrt{r}}{\pi} \rightarrow \tan y = \frac{\sqrt{r}}{\epsilon}$$

$$\rightarrow \cot y = \frac{1}{\tan y} = \frac{\epsilon}{\sqrt{r}}$$

$$A = (\sqrt{r} - \frac{\sqrt{r}}{\pi}) (1 - \cos \pi) - (\sqrt{r} \frac{\sqrt{r}}{\pi} + (-\cos \pi))$$

$$= \frac{r}{\pi} \cos \pi + \cos \pi = \pi, \delta \cos \pi$$

$$\tan \pi = -\tan \pi = \tan(-\pi)$$

$$\pi = k\pi - \pi \rightarrow \pi = \frac{k\pi}{\delta}$$

1	2	3	4
$\frac{\pi}{\delta}$	$\frac{2\pi}{\delta}$	$\frac{3\pi}{\delta}$	$\frac{4\pi}{\delta}$

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معدل

حساب ۱۲.۴

امیر محمد حسینی

۱۶ - ۳۰ شهریور

$$\lim_{x \rightarrow \sqrt{a}} \left(\frac{x\sqrt{x-a}}{\sqrt{x-a}\sqrt{x+a}} + \frac{x(\sqrt{x}-\sqrt{a})}{\sqrt{x-a}\sqrt{x+a}} \right)$$

$$= \lim_{x \rightarrow \sqrt{a}} \left(\frac{x}{\sqrt{a}} + \frac{x(\sqrt{x}-\sqrt{a})}{\sqrt{x-a}\sqrt{x+a}} \times \frac{\sqrt{x}+\sqrt{a}}{\sqrt{x}+\sqrt{a}} \right)$$

$$= \frac{x}{\sqrt{a}} + \lim_{x \rightarrow \sqrt{a}} \frac{\sqrt{x-a}}{\sqrt{x-a}\sqrt{x+a}} = \frac{x}{\sqrt{a}} + 0 = \frac{x\sqrt{a}}{a} \Rightarrow \boxed{\sqrt{\frac{x}{a}}}$$

$$\frac{b}{a} = ? \quad \lim_{x \rightarrow \sqrt{a}} \frac{x}{x^2 + ax + b} = \infty \quad \text{۱۷ - ۳۰ شهریور}$$

$$\rightarrow \lim_{x \rightarrow \sqrt{a}} \frac{x}{(x-\sqrt{a})^2} \rightarrow (x-\sqrt{a})^2 \rightarrow x^2 - 2\sqrt{a}x + \sqrt{a}^2$$

$$\frac{b}{a} = \frac{\sqrt{a}^2}{-2\sqrt{a}} = \frac{-1, 0}{1} \rightarrow \left[\frac{b}{a} \right] = -1$$

@amirmjhp

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

$$f^{-1}(n) = -\frac{r}{a} n + 0$$

$$\lim_{n \rightarrow -\infty} \frac{-\frac{r}{a} n}{|-\frac{r}{a} n|} = 1$$

$$\lim_{n \rightarrow -\infty} \frac{1}{|-\frac{r}{a} n|} = 0$$

$$= \lim_{n \rightarrow -\infty} \frac{\frac{r}{a} n}{\ln |r-a|} = \frac{r}{a|r-a|} \rightarrow r \rightarrow a|r-a| = 1$$

$$\rightarrow \begin{cases} a > r, a^r - r a - 1 = 0 \rightarrow a = 1 + \sqrt{r} \checkmark \\ a < r, a^r - r a + 1 = 0 \rightarrow a = 1 - \sqrt{r} \times \\ a = 1, a^r - r a + 1 = 0 \rightarrow a = 1 \checkmark \end{cases}$$

$$n \rightarrow 0^+, \frac{\ln n}{a \ln n} = \frac{1}{a}$$

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

$$\rightarrow \begin{cases} a = -\frac{1}{r} \times \\ a = r \checkmark \end{cases}$$

$$\lim_{n \rightarrow \frac{1}{a}} f(n) = \lim_{n \rightarrow \frac{1}{r}} f(n) = \frac{\frac{1}{2} + \frac{1}{r}}{\frac{1}{2} + 1} = \frac{\frac{r}{2}}{\frac{3}{2}} = \frac{r}{3}$$

٢- شرح

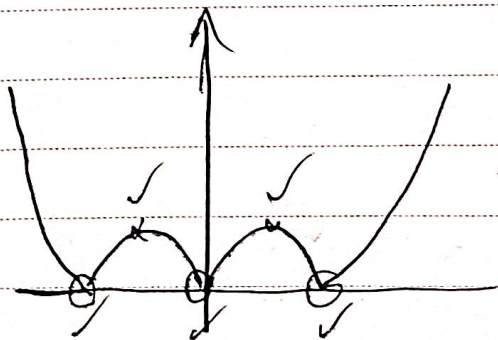
✓
سید $a+1=b$ $\rightarrow$ $1 = b - \frac{1}{2} = \frac{1}{2}b$

$$\rightarrow b = \sqrt[n]{a} \rightarrow a = \left(\frac{1}{r}\right)^n$$

$$a + b \cdot \frac{1}{r} + \frac{r}{r^2}$$

$y = f(n) \cdot \log_2 n$

۲۲ فرست!



$$m_2^p \rightarrow \frac{n}{m} = \frac{p}{r}$$

PAPCO

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