

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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مؤلف کتابی کانون و ریاض

مشول درس ریاضی کانون

طراح، ویراستار و نشرینگر آزمون کانون و سایر آزمونهای آمادگی

مدرس بررزی گنلو

لنگر تحریر ۱۴۰۳ تیرماه

سؤال ۱۱۱

$$\frac{\sqrt[4]{2^1}}{\sqrt[4]{2^3} \times 2^{-3}} = \frac{\sqrt[4]{2^2}}{2^{-3}} = \frac{2^{\frac{1}{2}}}{2^{-3}} = 2^{\frac{1}{2}+3} = 2^{\frac{7}{2}}$$

$$\sqrt[3]{2^1} = 8\sqrt[3]{2}$$

(۱, ۲, ۳), (۴, ۵, ..., ۱۲)

(۱۳, ..., ۳۹), (۴۰, ..., ۱۲۰)

سؤال ۱۱۲

$$\frac{121 + 363}{2} = 242$$

$$\{121, \dots, 363\} \Rightarrow \frac{121 + \dots + 363}{242} = 242$$

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سؤال ١١٣

$$ar^r = \sqrt{ar^k} \Rightarrow ar^{\frac{r}{2}} = ar^{\frac{k}{2}} \Rightarrow ar = 1$$

$$ar^k = r^r \Rightarrow r^{\frac{r}{2}} = r^{\frac{k}{2}} \rightarrow r = k, a_r = \frac{1}{k}$$

$$\frac{1}{r} - \frac{1}{k} = \frac{1}{4}$$

سؤال ١١٤

$$\sqrt{n+a} - \sqrt{n-\varepsilon} = r$$

$$\sqrt{n+a} + \sqrt{n-\varepsilon} = t \Rightarrow a + \varepsilon = r^2 t$$

$$\Rightarrow \frac{a+\varepsilon}{r} - r = \frac{a}{r} \Leftrightarrow \frac{a+\varepsilon}{r} = t$$

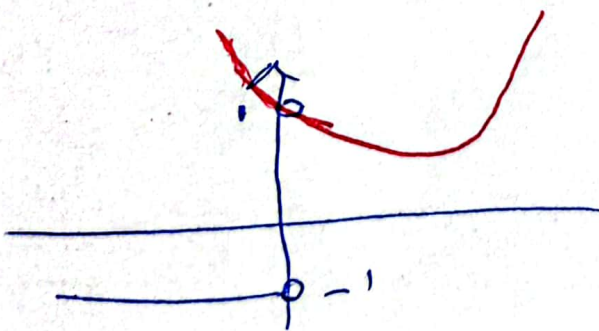
سؤال ١١٥

$$y = rx^2 + \frac{k}{r}x + c$$

$$L: (1/r, 1)$$

$$\frac{1}{r} + \frac{k}{\varepsilon} + c = 1$$

$$c = -\frac{1}{\varepsilon}$$



$$-1 = \log_c^{-b} \Rightarrow -b = \frac{1}{c} \rightarrow \boxed{bc = -1} \quad \text{I} \quad \text{IIY}$$

$$\left(-\frac{r}{f}, 0\right) \rightarrow 1 = \log_c^{-\frac{r}{f}a-b} \rightarrow c = -\frac{r}{f}a - b$$

$$\boxed{a=1} \Leftarrow \frac{1}{f} = -\frac{r}{f}a + r$$

$$\left(1 + \frac{1}{f}\right)(-r) = \frac{r}{f} \times -r = \boxed{-r} \quad \checkmark$$

$$\boxed{\begin{matrix} b = -r \\ c = \frac{1}{f} \end{matrix}}$$

$$\frac{-\frac{r}{f}}{a\left(\frac{r}{f}\right)} = -\frac{1}{f} \Rightarrow \frac{-r}{a} = -1 \Rightarrow \underline{a = r} \quad \text{IIIV}$$

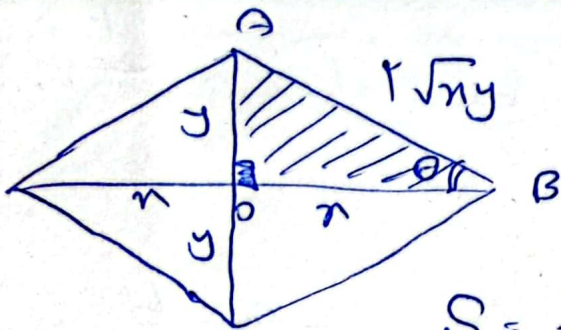
$$\frac{|\sin \alpha|}{\cos \alpha} = -\frac{1}{\cos \alpha} \quad \text{IIA}$$

$$\sin \alpha < 0 \rightarrow \mu_1 = -\mu_2$$

$$\frac{1}{|\cos \alpha|} - \frac{\sin \alpha}{\cos \alpha} = \frac{1 + \sin \alpha}{|\cos \alpha|}$$

$$\frac{\sin \alpha}{|\cos \alpha|} = \frac{-\sin \alpha}{\cos \alpha} \Rightarrow \cos \alpha < 0 \rightarrow \mu_1 = -\mu_2$$

$$\Rightarrow \mu_1 = \mu_2$$



15/11/19

$$S = \frac{1}{4} (4xy) \sin 2\theta \Rightarrow \text{Area}$$

$$S = \frac{1}{2} xy$$

$$\Rightarrow \sin 2\theta = \frac{1}{r} \Rightarrow \theta = 15^\circ$$

$$B_r = 1 \omega \quad A_r = \sqrt{3} \omega$$

$$\tan(A/2 - B/2) = \tan(60^\circ) = \sqrt{3}$$

15/11/19

$$1 - r \sin \alpha = r \sin \alpha - 1$$

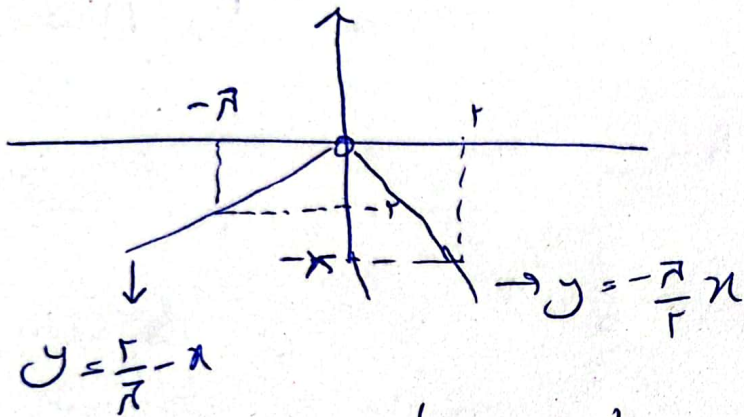
$$r \sin \alpha + r \sin \alpha - r = 0$$

$$\sin \alpha + \sin \alpha - 2 = 0 \quad \left\{ \begin{array}{l} \sin \alpha = 1/2 \text{ or } 60^\circ \\ \sin \alpha = -2 \text{ or } 120^\circ \end{array} \right.$$

$$\frac{\pi}{4}, \frac{3\pi}{4} \Rightarrow \frac{\pi}{4} = \frac{\pi}{r}$$

$$\frac{2\pi}{|1/a|} = \frac{\pi}{\pi} \rightarrow |a| = \frac{1}{\pi} \Rightarrow a = \pm \frac{1}{\pi} \quad \text{۱۲۱}$$

$$\frac{2\pi}{|1 + \frac{1}{\pi}|} = \frac{4\pi}{\pi}$$



$$\frac{1}{\pi^2/\epsilon} - \frac{1}{-1} = \frac{\epsilon}{\pi^2} - 1$$

حقی از اسید روی نرینه ای کبیر دارند و کج است ۱۲۳

$$\lim_{n \rightarrow \pi^-} \frac{f(n)}{\sin n} = \infty \Rightarrow \frac{f(\pi^-)}{0^+} = -\infty$$

$$f(\pi^-) < 0$$

حوا ۱۲۴ $\left[\frac{\pi-\pi}{\pi}\right] - \pi$

$$f(n) = a[n] + b[n+1]$$

15 15ε

$$\frac{f(a)}{a} = \frac{b}{a} = \frac{b}{-b} = (-1) \checkmark$$

$$\downarrow a = -b$$

15 15ω

$$\frac{1}{\mu} = \frac{a}{\sqrt{ab-1}} \rightarrow \sqrt{ab-1} = \mu a$$

$$= \frac{\mu b}{\mu} + \frac{1}{\mu} \Rightarrow 9a = \mu b + 1 \quad \begin{cases} a = \mu \\ b = \omega \end{cases}$$

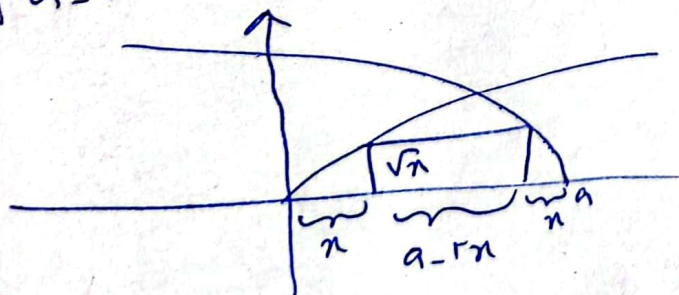
$$f(n) = \sqrt{\mu n - 1} \Rightarrow f(\omega) = \sqrt{9} = \mu \checkmark$$

*

$$y = \frac{1}{\mu} x + \frac{\varepsilon}{\mu} \quad \Delta \left| \frac{b}{\sqrt{ab-1}} \right| \Rightarrow \sqrt{ab-1} = \left(\frac{b}{\mu} + \frac{\varepsilon}{\mu} \right)$$

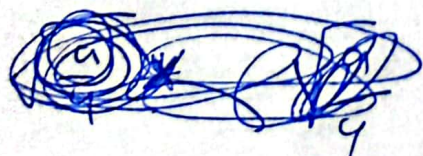
$$\sqrt{a-n}$$

$$\sqrt{n}$$



15 15γ

$$s = \sqrt{n}(a-n) \Rightarrow n = \frac{0 + \frac{a}{\varepsilon}}{\frac{1}{\mu}} = \frac{a}{\gamma}$$



$$\sqrt{\frac{a}{\gamma}} \times \frac{\mu}{\mu} = \sqrt{\mu}$$

$$a = \mu \checkmark$$

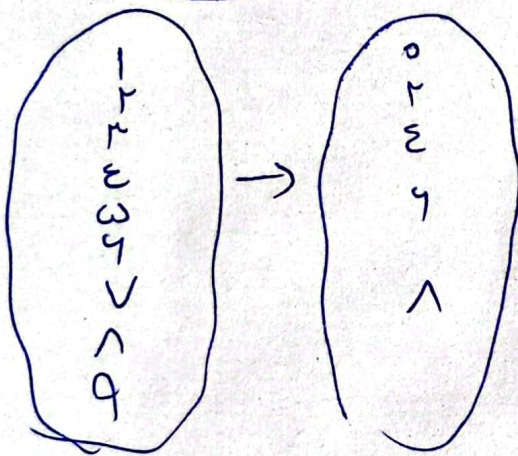
$$\bar{x} = \frac{\mu a + \mu}{\mu} = a + 1$$

$$\mu \rightarrow 1 \mu V$$

$$\sigma = \sqrt{1 + \frac{(a-1)^2 + (a-1)^2}{\mu}} = \sqrt{12}$$

$$a^2 - \mu a - 1 = 0$$

$$(a-4)(a+1) = 0 \quad \left\{ \begin{array}{l} a=4 \Rightarrow \frac{a}{\mu} = \frac{4}{1} = 4 \\ a=-1 \end{array} \right. \quad \checkmark$$

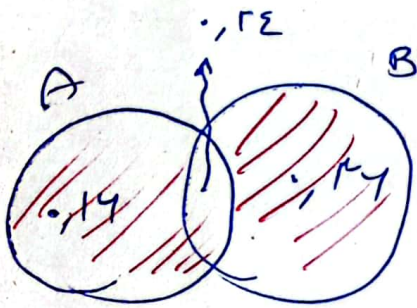


$$\mu \rightarrow 1 \mu A$$

$$\begin{pmatrix} 9 \\ 8 \end{pmatrix} \times \omega = \frac{9 \times 1 \times 1 \times 1 \times 1}{8 \times 8 \times 8 \times 8} \times \omega = \frac{9 \mu_0}{8} \quad \checkmark$$

$$\varepsilon \rightarrow 1 \mu A$$

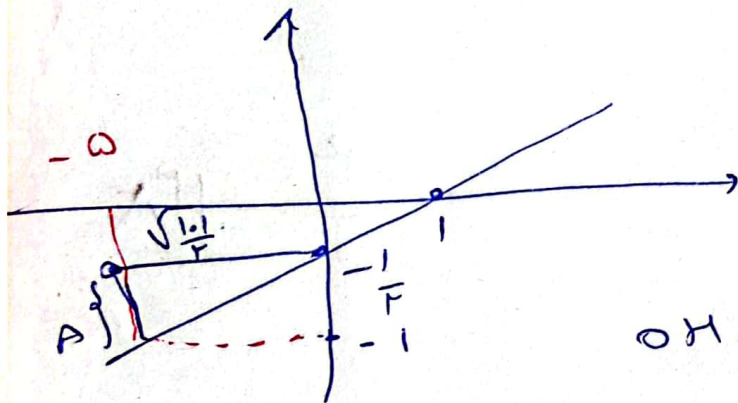
$$1 - \frac{4}{\mu_4} = 1 - \frac{1}{4} = \frac{3}{4} \quad \checkmark$$



Ques 1 130

$$\frac{1}{r} \omega + \frac{1}{r} \epsilon = \frac{1}{r} \omega \quad \checkmark$$

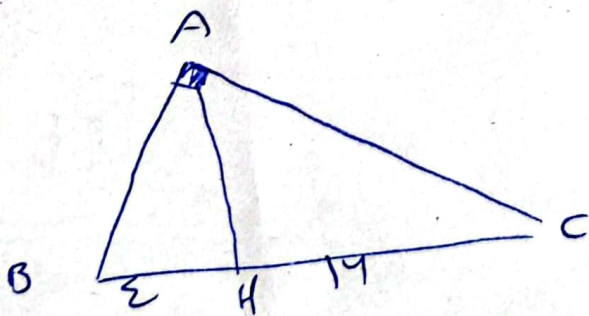
2 131



$$d = \frac{1 - \omega + r - 1}{\sqrt{\omega}} = \frac{\epsilon}{\sqrt{\omega}}$$

$$OH = \sqrt{\frac{1}{\epsilon} - \frac{1}{\omega}} = \frac{r}{r\sqrt{\omega}}$$

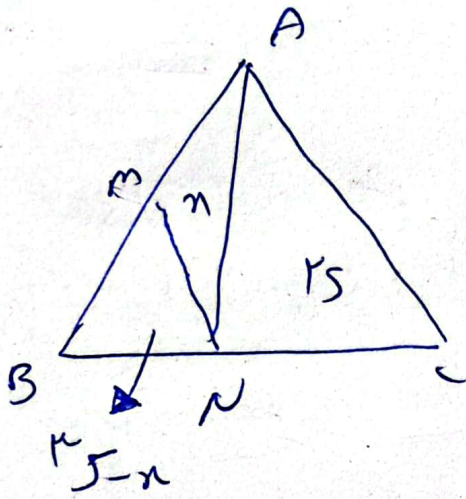
$$S = \frac{1}{r} \times \frac{\epsilon}{\sqrt{\omega}} \times \frac{r}{r\sqrt{\omega}} = \frac{r}{\omega} = \epsilon, r \quad \checkmark$$



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$$\frac{AC}{AB} = \left(\frac{HC}{HB} \right)^r$$

$$\left(\frac{AC}{AB} \right)^r = \frac{HC}{HB} = \epsilon \Rightarrow \frac{AC}{AB} = r$$

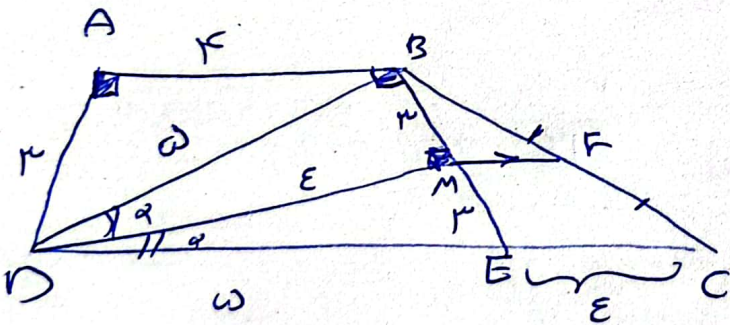


$$\frac{S_{AMN}}{S_{ABC}} = \frac{1}{4} \Rightarrow \frac{S - n^2}{S} = \frac{1}{4}$$

$$\Rightarrow 4S - 4n^2 = S$$

$$3n^2 = 3S$$

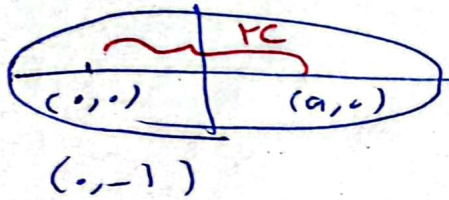
$$\frac{BM}{AM} = \frac{S - n^2}{n^2} = \frac{S - \frac{S}{4}}{\frac{S}{4}} = \frac{\frac{3S}{4}}{\frac{S}{4}} = 3$$



BDE متساوية الساقين $\rightarrow MF \parallel EC$

$$MF = \frac{EC}{2} = 1$$

$$a = r\kappa$$



$$c = r\kappa$$

$$a = \sqrt{\omega} \kappa$$

$$\frac{c}{a} = \frac{r}{\sqrt{\omega}}$$

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

$$b^r = a$$

$$1 + \sqrt{a^2 + 1} =$$

$$b^r = r\kappa = \sqrt{\omega} \kappa$$

$$\kappa = 1, \kappa = \sqrt{\omega} \Rightarrow \underline{a = \omega, c = r\sqrt{\omega}}$$

$$\underline{1} \quad \underline{1\kappa\gamma}$$

$$-r_n = 1 - r_n^r \begin{cases} n=1 \\ n=-1 \end{cases}$$

$$\underline{1\kappa\gamma}$$

$$f^{-1}(n) \geq 0$$

$$n - f^{-1}(n) \rightarrow n < f^{-1}(n)$$

$$-7, -\omega, -\varepsilon, -c$$

۲۵ ۱۳۱

$$r a_n = \omega n + 1 \wedge q = n$$

$$a_n r + r n + q a = 0$$

$$\Delta = 0 \rightarrow q - r q a r \rightarrow a = \pm \frac{1}{r}$$

$$a = -\frac{1}{r} \quad \checkmark \quad \text{ق ق}$$

$$r a' - a - q = 0 \quad k=1 \quad \text{میر}$$

۱۵ ۱۳۹

$$p = -\frac{q}{r} = -r \quad \checkmark$$

$$S = -\frac{1}{r a} \quad y_s = n_s \times \frac{b}{r} + c$$

۲۵ ۱۳۰

$$y_s = -\frac{1}{r a} \times \frac{1}{p} + r a \Rightarrow y_s = \frac{-1}{\varepsilon a} + r a$$

$$= \frac{\Lambda a r - 1}{\varepsilon a} = -\frac{1}{r}$$

$$\Rightarrow \Lambda a r + r a - 1 = 0$$

بیت

$$a = \frac{1}{\varepsilon} \quad \text{ق ق}$$

$$a = -\frac{1}{r} \quad \text{ق ق}$$

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مؤلف کتابهای قانون، ریاضیات
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میرزا علی - شیر و شیرین
محقق

meerk-hamidli

تقدیم به سوی مادر و خواهر عزیزان

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