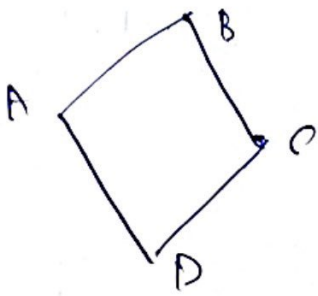


③ : حل سوال



$$AB \leq d$$

$$m_{AB} = -\frac{c}{\varepsilon} \Rightarrow m_{AD} = \frac{\varepsilon}{c}$$

$$AD: y = \frac{\varepsilon}{c}x + 1$$

$$AD: y = \frac{\varepsilon}{c}x + 1$$

$$AD' = c \Rightarrow x^c + \left(\frac{\varepsilon}{c}x\right)^c = c^c$$

$$\Rightarrow \frac{c \cos^c \theta}{c} = c^c \quad x = c$$

$$g^{-1} \circ f^{-1}(0), \alpha \Rightarrow f^{-1}(0), g(\alpha) \Rightarrow c = \sqrt{c^2 - \varepsilon^2} \quad \text{②: ① حل سوال}$$

$$\xrightarrow{\alpha < c} a - \varepsilon \alpha + \alpha^c \leq c^c - \varepsilon \Rightarrow \alpha^c - 1 \alpha + 1 \leq c^c$$

$$\xrightarrow{\alpha < c} \alpha \leq \frac{c^c - 1}{c}$$

$$y + \varepsilon^{b-a} = -x^c - \varepsilon x + 1$$

①: ④ حل سوال

$$\alpha \leq 1 \rightarrow c^{b-a} \leq c \Rightarrow b-a \leq 1$$

$$f(-1) = 1.$$

$$\alpha > -1 \Rightarrow \varepsilon + \varepsilon^{b-a} \leq 1 \Rightarrow b-a \leq c \quad \left\{ \begin{array}{l} a \leq 1 \\ b \leq c \end{array} \Rightarrow c^{b-a} \leq c \right.$$

$$x^c - \varepsilon x + \varepsilon - (x^c - \varepsilon x - c) \leq \varepsilon x (b-a)$$

④: 10 حل سوال

$$\varepsilon x^c + \varepsilon x - c \Rightarrow \begin{cases} \alpha < 0 \\ \beta > 0 \end{cases}$$

در این حالت
(موقعی که $\alpha < 0$)

$$\begin{cases} AC = \sqrt{10} \\ DE = \varepsilon \end{cases}$$

$$\begin{cases} \cos \theta = \frac{c}{\sqrt{10}}, \sin \theta = \frac{1}{\sqrt{10}} \\ \cos \beta = \frac{1}{\sqrt{10}}, \sin \beta = \frac{c}{\sqrt{10}} \end{cases}$$

②: 11 حل سوال

$$\cos \alpha = \cos(\beta - \theta) = \cos \beta \cos \theta + \sin \beta \sin \theta \quad \text{در این حالت}$$

$$a, aq, aq^2 \Rightarrow \Sigma a, 14aq, 14aq^2$$

② سوال 81

$$14aq = \Sigma a + 14aq^2 \Rightarrow \Sigma q^2 - \Sigma q + 1 = 0 \Rightarrow q = \frac{1}{4}$$

$$\Rightarrow a^2 + \frac{1}{4}a^2 + \frac{1}{16}a^2 = \Sigma a + \Sigma a + \Sigma a \Rightarrow \frac{21}{16}a^2 = 16a \Rightarrow a = \frac{48}{7}$$

$$A\left(\frac{r}{k}, -\frac{s+rk}{k}\right) \Rightarrow -\frac{s+rk}{k} = \frac{-1}{k} - s$$

④ سوال 82

$$\Rightarrow k = c \Rightarrow y = -\frac{\Sigma c(c)}{c} = -1$$

$$\Sigma x + \Sigma m = 0 \Rightarrow x = -m$$

⑤ سوال 83

$$\Rightarrow m^2 - 4m + m = 0 \Rightarrow \begin{cases} m = 0 \\ m = 3 \end{cases} \quad \begin{cases} x^2 + 9x + 1 = 0 \\ x^2 + 9x - 1 = 0 \end{cases}$$

$$\Rightarrow \begin{cases} x = -3, -1 \\ x = -3, 1 \end{cases} \Rightarrow x - (-1) = 2$$

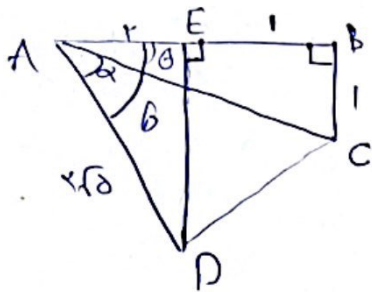
$$-1 < y < 0 \Rightarrow x^2 - 9x + 1 < 0 \Rightarrow -1 < x < 1$$

④ سوال 84

$$\textcircled{2} \frac{r}{x^2 - 9x + 1} > -1 \Rightarrow x^2 - 9x + 1 < -x$$

$$x^2 - 9x + 1 < 0$$

$$\Delta < 0 \rightarrow \text{جواب نہیں}$$



$$\text{obj} \rightarrow \frac{1}{\sqrt{2}} \times \frac{c}{\sqrt{10}} \rightarrow \frac{c}{\sqrt{2}} \times \frac{1}{\sqrt{10}} = \frac{d}{\sqrt{20}} = \frac{\sqrt{r}}{r}$$

$$f(0) = 0 \Rightarrow a + \frac{b}{r} = 0$$

③ سوال ۱۲

$$T = 2\pi = \frac{c\pi}{|c|} \Rightarrow |c| \leq 1$$

$$\max |c| \Rightarrow a + |b| \leq 1 \Rightarrow y' = -bc \sin(cx - \frac{\pi}{4}) \Rightarrow bc > 0$$

$$\rightarrow y'(0) = \frac{bc\sqrt{r}}{r} > 0$$

از هر دو جهت به هم می رسد.

$$c = 1 \begin{cases} a + b = 1 \\ a + \frac{b}{c} = 1 \end{cases} \Rightarrow \begin{cases} a = 1 \\ b = 0 \end{cases} \Rightarrow b(c - a) \leq 0$$

جواب د و د.

$$\cos\left(r\pi + \frac{\pi}{4} + \alpha\right) \cos\left(\frac{\pi}{2} - \frac{\pi}{4} - \alpha\right) = \frac{1}{2}$$

④ سوال ۱۳

$$\cos\left(\frac{\pi}{4} - \alpha\right) \sin\left(\frac{\pi}{4} + \alpha\right) = \frac{1}{2}$$

$$\frac{1}{2} \sin\left(c\alpha - \frac{\pi}{2}\right) = \frac{1}{2} \Rightarrow \sin\left(c\alpha - \frac{\pi}{2}\right) = \frac{1}{2} \Rightarrow c\alpha - \frac{\pi}{2} = \frac{\pi}{6}, \frac{5\pi}{6}$$

$$f(g(x+c)) = c \Rightarrow g(x+c) = \sqrt{1-c} \text{ و } -\sqrt{1-c} \text{ جواب } \textcircled{2} \text{ سوال ۱۴}$$

$$\left|\frac{1}{2}x - 1\right| = c \Rightarrow x = 2, -c$$

① سوال ۱۵

$$m f^{-1} = \frac{a}{m} \Rightarrow \frac{\frac{a}{m}}{\frac{m}{a}} = \frac{a^2}{m^2} = \pi \Rightarrow m^2 \leq \pi$$

$$m = -\sqrt{\pi}$$

سوال ۱۹ (۱) $\frac{1}{x}$ در $x=0$ حد دارد یا نه؟

$$x=0 \begin{cases} |x - [x]| = 0 \\ |x - [x-a]| = |-[-a]| = [-a] \end{cases}$$

$\Rightarrow [-a] = 0 \Rightarrow$ ~~$0 \leq -a < 1$~~ در $-1 < a \leq 0$ قیاس

$\hookrightarrow 0 \leq -a < 1 \Rightarrow -1 < a \leq 0 \Rightarrow [-a] = 0 \Rightarrow 0 \leq -a < 1$

$$f = \begin{cases} \frac{x}{1-x^2} & x > 0 \\ \frac{x}{1+x^2} & x < 0 \end{cases} \Rightarrow f' = \begin{cases} \frac{1+x^2}{(1-x^2)^2} & x > 0 \\ \frac{1-x^2}{(1+x^2)^2} & x < 0 \end{cases}$$

سوال ۱۹ (۲)

$f' = 0 \xrightarrow{x < 0} x = -1$ (در $x=0$ قیاس)

$x > \frac{c}{2} \Rightarrow y = (\sum x - c) \sqrt{ax} \Rightarrow y' = \sum \sqrt{4x \frac{c}{2}} = \sqrt{ca}$ سوال ۱۸ (۳)

در $x = \frac{c}{2}$: $y' = -\sqrt{ca} \Rightarrow \sum \sqrt{ca} = c \sqrt{4} \Rightarrow \sum \sqrt{ca} = \sum \sqrt{ca} \Rightarrow$
(۱۵)

$S = \alpha + \beta \frac{m-c}{m^2-1} \Rightarrow S' = \frac{m^2-1 - 2m(m-c)}{(m^2-1)^2} = \frac{-m^2 + \sum m - 1}{(m^2-1)^2}$ سوال ۱۹ (۲)

$S' = 0 \Rightarrow m \leq 1 \pm \sqrt{2}$

x	$c - \sqrt{2}$	$c + \sqrt{2}$
S'	-	+
S		max

instagram: yasinlavipanjeh
 telegram: yasin-lavipanjeh

در $\Delta > 0 \Rightarrow 19m^2 + \sum m - c \leq 0$
 (در $\Delta < 0$ و $\Delta = 0$ قیاس)