

$AB \leq d$

$m_{AB} = -\frac{c}{2} \Rightarrow m_{AD} = \frac{2}{c}$

$AD: y = \frac{2}{c}x + 1$

$AD: y = \frac{2}{c}x + 1$

$AD^2 = cd \Rightarrow x^2 + (\frac{2}{c}x)^2 = cd$

$\Rightarrow \frac{c^2 x^2}{c^2} = cd - x^2 \Rightarrow x^2 = \frac{cd}{2} \Rightarrow x = \pm \sqrt{\frac{cd}{2}}$

$g^{-1} \circ f^{-1}(0), \alpha \Rightarrow f^{-1}(0), g(\alpha) \Rightarrow c = \sqrt{2\alpha - 2}$ ② : ۸ سوال

$\alpha < c \Rightarrow a - 9\alpha + \alpha^2 \leq cd - 2 \Rightarrow \alpha^2 - 10\alpha + 10 \leq 0$
 $\alpha < c \Rightarrow \alpha \leq 5 - \sqrt{5}$

$\frac{b-a}{1+\alpha} = -\alpha^2 - 3\alpha + 1$

① : ۹ سوال

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

$f(-1) = 1$

$\alpha > -1 \Rightarrow \frac{b-a}{1+\alpha} \leq 1 \Rightarrow b-a \leq 1$

$\left. \begin{matrix} a \leq 1 \\ b \leq c \end{matrix} \right\} \Rightarrow cb - a \leq c$

$x^2 - 9x + 2 - (x^2 - 9x - c) = 4x(9x + c)$

④ : 10 سوال

$4x^2 + 9x - 9 \Rightarrow \begin{cases} \alpha < 0 \\ \beta > 0 \end{cases}$

مربع و مستطین (مربع مستطین)

$\begin{cases} AC = \sqrt{10} \\ DE = 2 \end{cases}$

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

② : 11 سوال

$\cos \alpha = \cos(\beta - \theta) = \cos \beta \cos \theta + \sin \beta \sin \theta$ \rightarrow مربع مستطین

$$a, aq, aq^2 \Rightarrow \Sigma a, \lambda aq, \mu aq^2$$

② سوال

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

$$\Rightarrow a^c + \frac{1}{c} a^c + \frac{1}{c^2} a^c = \Sigma a + \Sigma a + \Sigma a \Rightarrow \frac{c^2}{14} a^c = 10a \rightarrow a = \frac{4c}{7}$$

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

④ سوال

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

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

⑤ سوال

$$\Rightarrow m^c - 4m + m = 0 \Rightarrow \begin{cases} m = 0 \\ m = d \end{cases} \begin{cases} x \\ x^c + 4x + d = 0 \\ x^c + 4x - 1 = 0 \end{cases}$$

$$\Rightarrow \begin{cases} x = -d, -1 \\ x = -d, c \end{cases} \Rightarrow c - (-1) = \Sigma$$

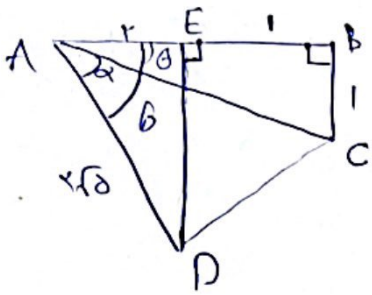
$$-r < y < 0 \Rightarrow \textcircled{1} x^c - cx + c < 0 \Rightarrow -r < x < -1$$

④ سوال

$$\textcircled{2} \frac{r}{x^c - cx + c} > -r \Rightarrow c < -cx^c + 4x - \Sigma$$

$$x^c - cx + c < 0$$

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



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

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

سوال 3

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

$\rightarrow y'(0) = \frac{bc\sqrt{r}}{r} > 0 \Rightarrow bc > 0$
 $\rightarrow y' = -bc \sin(cx - \frac{\pi}{4})$

$\max |c| \Rightarrow a + |b| \leq 1$

در صورتی که در جواب باشد

$c = 1$
 $\begin{cases} a + b = 1 \\ a + \frac{b}{2} = 1 \end{cases} \Rightarrow \begin{cases} a = 1 \\ b = 0 \end{cases} \Rightarrow b(c - a) \leq 1$

جواب دو در دو

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

سوال 4

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

$\frac{1}{2} \sin(cx + \frac{\pi}{2}) = \frac{1}{2} \Rightarrow \sin(cx + \frac{\pi}{2}) = \frac{1}{2} \Rightarrow cx + \frac{\pi}{2} = \frac{\pi}{6}, \frac{5\pi}{6}$
 $\Rightarrow cx = \frac{\pi}{6} - \frac{\pi}{2}, \frac{5\pi}{6} - \frac{\pi}{2}$

$f(g(x+c)) = c \Rightarrow g(x+c) = \sqrt{1-c}$

سوال 2

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

$m f^{-1} = \frac{a}{m} \Rightarrow \frac{\frac{a}{m}}{\frac{m}{a}} = \frac{x}{m^c} = \pi \Rightarrow m \leq \pi$
 $m f = \frac{m}{x} \Rightarrow \frac{m}{x} = \frac{x}{m^c} = \pi \Rightarrow m = -\sqrt{x}$

سوال 1

سوال 19

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

$\Rightarrow [-a] = 0 \Rightarrow$ ~~...~~ $\Rightarrow -a < 0 \Rightarrow a > 0$

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

$f' = 0 \xrightarrow{x < 0} x = -1$ (محل بحرانی $x = -1$)

$x > \frac{c}{2} \Rightarrow y = (\Sigma x - c) \sqrt{ax} \Rightarrow y' = \Sigma \sqrt{4x^c} = c \sqrt{ca}$

محل بحرانی: $y' = -\sqrt{ca} \Rightarrow \Sigma \sqrt{ca} = c \sqrt{c} \Rightarrow \Sigma x^c = ca \Rightarrow \Sigma x^c = \frac{ca}{c}$

$$S = \alpha + \beta = \frac{m-c}{m^c-1} \Rightarrow S' = \frac{m^c-1 - cm(m^c-1)}{(m^c-1)^2} = \frac{-m^c + \Sigma m - 1}{(m^c-1)^2}$$

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

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

instagram: YasirZavipanje
telegram: Yasir-Zavipanje

محل بحرانی S و S' را بررسی می‌کنیم. $\Delta > 0 \Rightarrow 19m^c + \Sigma m - c \leq 0$