

نوبه شبا ۲۰ آفرین

$$(n-1)^2 - n^2 \geq 0 \rightarrow \frac{1-2n}{n(n-1)} \geq 0 \rightarrow \frac{1}{n-1} \geq \frac{2}{n} \rightarrow \frac{1}{n-1} - \frac{2}{n} \geq 0$$

(الف) ۱

$$D = (-\infty, 0) \cup \left[\frac{1}{2}, 1\right)$$

$$D = \mathbb{R} - \left\{ \frac{1}{2}, 1 \right\} = \mathbb{R} - \left\{ \frac{1}{2}, 1 \right\}$$

$\frac{1}{n-1} + \frac{1}{n+2} = 0 \rightarrow n = -\frac{2}{3}$

$$\left[\left(\frac{1}{n} \right)^4 - 9 \right] (n - \varepsilon^n) \geq 0 \rightarrow \frac{1}{n^4} - 9 \geq 0 \rightarrow \frac{1}{n^4} \geq 9 \rightarrow n^4 \leq \frac{1}{9} \rightarrow n \leq \frac{1}{\sqrt[4]{9}}$$

(الف) ۲

$$D = (-\infty, \frac{1}{2}] \cup [1, \infty)$$

$$n \geq 1 \rightarrow n \geq 1$$

$$\frac{1}{n-1} \geq 0 \rightarrow n \geq 1$$

$$\frac{1}{n^2} \geq n-1 \rightarrow n^2 \geq n-1 \rightarrow n^2 - n + 1 \geq 0$$

$$\Rightarrow 1 \leq n \leq 1.41$$

$$(I) n^2 - n - 2 \geq 0 \rightarrow \frac{1}{n-2} \geq 0 \rightarrow \frac{1}{n-2} \geq 0 \rightarrow n \geq 2$$

(۳)

$$(II) n^2 - 1 \geq 0 \rightarrow \frac{1}{n-1} \geq 0 \rightarrow \frac{1}{n-1} \geq 0 \rightarrow n \geq 1$$

$$(I) \cap (II) \rightarrow D = (-\infty, -1) \cup [1, \infty)$$



$$\begin{vmatrix} -r & p \\ -r & -r \end{vmatrix}$$

$$a + b = 1$$

(2)

(3)

$$r + a - r \geq 0 \rightarrow -r - \frac{1}{r} r + r \geq 0 \rightarrow -(r+r)(r-\frac{1}{r})$$

$$-r \rightarrow r - r a - \epsilon \rightarrow -1 - r a \rightarrow r a = -1 \rightarrow a = -\frac{1}{r}$$

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$$f(m) - n \geq 0 \rightarrow f(m) \geq n$$

$$n \geq 1 \rightarrow \sqrt{r m - r} \rightarrow n \geq 1$$

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$$n < 1 \rightarrow \sqrt{r m - r} \rightarrow \{U \rightarrow D[-r, +\infty)\}$$

$$n > -r \rightarrow -r < m < 1$$

$$\sin \frac{\pi}{2} = \frac{\sqrt{r}}{r}$$

$$\rightarrow f\left(1 + \frac{\sqrt{r}}{r}\right) \rightarrow r m (m - r) \rightarrow$$

$$\cos \frac{\pi}{2} = 1$$

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

$$-\frac{1}{r}$$

$$f(a) = \frac{a+1}{a-1} \rightarrow f(f(a)) = f\left(\frac{a+1}{a-1}\right) = \frac{\frac{a+1}{a-1} + 1}{\frac{a+1}{a-1} - 1}$$

$$= \frac{a+1+a-1}{a-1}$$

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

$$\frac{a+1-a+1}{a-1}$$

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$$a = 1$$

(2)

(4)



$$(I) \quad n^r \cdot \sin \theta + \xi = 0 \rightarrow (n-r)^r = 0 \rightarrow n-r = 0 \rightarrow g(a) = 1$$

$$(II) \quad \sqrt{n^r - 1} = 1 \rightarrow n^r - 1 = 1 \rightarrow n = \pm \sqrt{2} = \alpha$$

$$(I, II) \quad a = \pm \sqrt{2}$$

$$f(n+r) = n^r - an + 4 = (n-r)/(n-r)$$

$$\frac{1}{t} \rightarrow f(t) = [t - 4]/[t - a]$$

$$f(\xi) = 1 \times f(-r) = \sqrt{1} = 1 \xi \xi$$

$$\xi \cos m + \omega \cos m = r, \omega$$

$$L \rightarrow \left(t + \frac{\omega}{n} \right)^r = \frac{11}{9\xi} \rightarrow \frac{\xi}{n} = \frac{1}{r} \checkmark$$

$$\cos m = \frac{1}{r} \rightarrow \tan m = \sqrt{r} \rightarrow \tan m = \frac{-1\xi}{n} \checkmark$$