

★ ١٩, ٥ آفرين

١- ميناوونى

$\pi = \alpha$
للمصوت
شرح

$$4a^2 + (m+1)a + \frac{m}{p} = 0$$

$$\left(\begin{array}{l} Pa^2 + (m+1)a + d = 0 \rightarrow \div a^2 \\ Pa + (m-1) = 0 \rightarrow \end{array} \right. \quad a = \frac{1-m}{p}$$

$$\rightarrow 4\left(\frac{1-m}{p}\right)^2 + (m+1)\left(\frac{1-m}{p}\right) + \frac{m}{p} = 0$$

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$$\rightarrow \frac{4(m^2 - 1)m + 1}{p} + \frac{1m - m^2 + 1 - 1m}{p} + \frac{m}{p} = 0$$

$$\rightarrow \frac{1m^2 - 1m + 1}{p} + 1m - m^2 + 1 - 1m + m = 0 \rightarrow 1m^2 - 1m + 1 = 0$$

$$m^2 - 4m + 9 = 0 \rightarrow m = 1$$

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

$f(x) = \frac{x^p + ax + b}{x-1}$ → اگر صفرها در آن فقط
 موجود باشد تا به نایب باشد
 باید آن فقط ریشه و جری آن باشد
 باید ریشه صورت هم باشد

$$x=1 \rightarrow x^p + ax + b = 0$$

$$1 + a + b = 0 \rightarrow a + b = -1$$

$$\omega x^p - ax + b = 0 \rightarrow \omega - a + b = 0$$

$$a - b = \omega$$

$$\rightarrow \begin{pmatrix} a = 1 \\ b = -\omega \end{pmatrix}$$

$$\left[\frac{-\omega - 1}{\omega} \right] = -1$$

$$f(x) = \begin{cases} \tan\left(\frac{\mu}{\kappa}(x+1)\pi\right) & x < 1 \\ \frac{x+\mu}{a(1-x)} = \frac{x+\mu}{-a} & 1 < x < \infty \\ b(x - [-x]) & x \geq \infty \end{cases}$$

$$\rightarrow ab = -\frac{V}{\mu_0} \times \mu = (-a, V)$$

$$f(1) = \tan\frac{\mu}{\kappa}\pi = -1 \quad -\mu$$

$$\lim_{x \rightarrow 1^+} f(x) = \frac{x+\mu}{-a} \sim \frac{\mu}{-a} \sim -\frac{\mu}{a} \quad \text{as } \mu$$

$$f(\infty) = b(\infty - [-\infty]) = \infty b$$

$$\lim_{x \rightarrow \infty^-} f(x) = \frac{V}{-a} = -\frac{V}{a} = -\frac{V}{\mu_0} = \infty b$$

$$\rightarrow b = -\frac{V}{\mu_0}$$

$$a([x]+1) + b([x]+[a+1]) = a[x] + a + b[x] + b[a] + b \quad -x$$

$$x \rightarrow -1^+ \rightarrow -a + a - b + b[a] = b[a]$$

$$x \rightarrow -1^- \rightarrow -a + a - b + b[a] + b = -a - b + b[a] = b[a]$$

$$f(a) = a[a] + a + b[a] + b[a] + b \quad \begin{matrix} a-b \\ \underline{a} \end{matrix}$$

$$\frac{a[a]}{-a[a]} \quad \textcircled{-1} \quad b[a] = -a[a] \quad \textcircled{v}$$

$$f(n) = b(a^n - a_1) - Pa$$

برای یونیفرمیت باید فاصله
برای تارین

$$\rightarrow b=0 \quad f(n) = -Pa \rightarrow f(b)s - Pa \quad \frac{a}{Pa} s^{-\frac{1}{p}} \quad -\omega$$



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

$$\frac{n^2-1a^2}{-n+a} \xrightarrow{\text{HOPE}}$$

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

$$\left. \begin{array}{l} m = -4 \\ n = 1 \end{array} \right\} \rightarrow n-m \leq 11$$

$$n=m \quad n \rightarrow m^+ \rightarrow (1-a)(m) + (\omega a^P - 1)(-m-1) = m - ma - \omega ma^P - \omega a^P m + 1$$

$$n \rightarrow m^- \rightarrow (1-a)(m-1) + (\omega a^P - 1)(-m) = m-1-am+a - \omega a^P m + m$$

$$\rightarrow m - m/a - \omega ma^P - \omega a^P m + 1 = m-1-am+a - \omega a^P m + m \rightarrow \omega a^P m - \omega ma^P$$

$$\omega a + a - P = 0 \rightarrow a = -1 \rightarrow \omega = m+m - \omega m - \omega + m + 1 = -P \rightarrow b \sin\left(\frac{\pi}{a}\right) = -P$$

$$\rightarrow b \sin\left(\frac{\pi}{a}\right) = b \sin\left(\frac{\omega \pi}{P}\right) = -\frac{1}{\omega} \rightarrow b \sin\left(\frac{1}{\omega}\right) = -\frac{1}{\omega}$$

$$\frac{a}{h} = P \quad \checkmark$$

$$n > 1 \rightarrow \frac{n^p + m^p - m - 1}{m^p - m + n - 1} = \frac{(n-1)(n^p + m + 1)}{(n-1)(m^p + m + 1)} = \frac{n^p + m + 1}{m^p + m + 1}$$

$$(V) \rightarrow \frac{m+p}{p m + 1} = \frac{m}{m+p} \rightarrow m = \frac{1}{p} \rightarrow \frac{n^p + \omega}{\frac{1}{p} m + \omega}$$

$$m \rightarrow -1 \rightarrow \frac{|n^p - n|}{-|n^p - 1| + |n - 1|}$$

$$f(1) = \frac{-1}{1} = -1$$

$$\frac{n^p - n}{-n^p + 1 + n - 1} = \frac{n^p - n}{-n^p + n} =$$

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

سید

$$\lim_{n \rightarrow \frac{1}{p}} f(n) \rightarrow \frac{|n^p + \frac{1}{p} - \omega|}{\frac{1}{p} |n^p - 1| + |n - 1|} = \frac{|n + \omega|}{\frac{1}{p} |n + 1| + 1}$$

$$= \frac{n + \omega}{\frac{1}{p} n + \omega} = \frac{\frac{1}{p}}{\frac{1}{p}} = \frac{1}{1} = 1$$

→ a را بسنج
 (سه صورت)

$$a^{\mu} + (m-\mu) a + a^{\mu} = 0 \rightarrow a(a^{\mu} + (m-\mu) + a) = 0$$

$$\sqrt{\mu}(a^{\mu} + a) = 0 \rightarrow a = 0 \times$$

(as-1)

$$\lim_{n \rightarrow -1} f(x) =$$

$$+1 + (m-\mu) = 0 \rightarrow m = \mu$$

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$$\rightarrow \lim_{n \rightarrow -1} \frac{\sqrt{\mu} |n+1|}{|n^{\mu} + 1|} = \frac{\sqrt{\mu}}{|n^{\mu} - n + 1|} = \frac{\sqrt{\mu}}{n^{\mu} - n + 1} = \frac{\sqrt{\mu}}{\mu}$$

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$$n > 0 \rightarrow \frac{n^p + n}{n^p + an} = f(n) = \frac{na-1}{pa+1} \rightarrow \frac{1}{a} = \frac{na-1}{pa+1}$$

$$\left[\frac{-1-1}{p} \right] = -1$$

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

$$pa+1 = na-1 \rightarrow pa - na = -2$$

$$a = \frac{p \pm 2}{p} = p \pm \frac{2}{p}$$

(2)

$$\rightarrow \lim_{n \rightarrow \frac{1}{p}} f(n) = \frac{n^p + n}{n^p + an}$$

$$\frac{n+1}{n+a} = \frac{p+1}{p} = \frac{p+1}{p}$$

$$as \ p \rightarrow \infty \quad n^p + p|n| = |n|(1+n)$$

فقط در صورتی که $a = \frac{1}{p}$ صحیح است

در صورتی که $a \neq \frac{1}{p}$ در صورتی که $a = \frac{1}{p}$ صحیح است

۱- عدد a باید تنها ریشه یابریال باشد و مخرج را هم صف کنند!

$$\Delta = 0 \rightarrow (m+3)^2 - 4 \times 4 \left(\frac{m}{4}\right) = m^2 - 4m + 9 = 0 \rightarrow \boxed{m=3}$$

$$\lim_{n \rightarrow a} \frac{\sqrt{4(n^2 + n + \frac{1}{4})}}{|2n^2 + a^2|} = \frac{\sqrt{4|n + \frac{1}{4}|}}{|2n^2 + a^2|} \rightarrow 2a^3 + a^2 = 0 \rightarrow a = 0 \text{ (مخرج صفر طبق و حدت عدد است x)}$$

$$\rightarrow a = -\frac{1}{4} \checkmark \rightarrow \frac{\sqrt{4|n + \frac{1}{4}|}}{|2n^2 - \frac{1}{4}|} = \frac{2\sqrt{4}}{3}$$

$$\frac{2 \tan b}{\sqrt{-(-\frac{1}{4})}} = \frac{2\sqrt{4}}{3} \rightarrow \tan b = \sqrt{\frac{3}{4}} \rightarrow b = \frac{\pi}{4}$$

$$\lim_{n \rightarrow +} \frac{n^2 + n}{n^2 + an} = \frac{n(n+1)}{n(n+a)} = \frac{1}{a}$$

$$\lim_{n \rightarrow -} \frac{n^2 - n}{n^2 - an} = \frac{n(n-1)}{n(n-a)} = \frac{1}{a}$$

$$\rightarrow f(\cdot) = \frac{2a-1}{2a+1} = \frac{1}{a} \rightarrow 2a^2 - 3a - 2 = 0 \rightarrow a = 2$$

$$\rightarrow a = \frac{1}{2}$$

بچه مخرج را حسیه دارم منو! و بهرسته نیست!

$$\text{if } a=2 \rightarrow \lim_{n \rightarrow \frac{1}{2}} \frac{n^2 + n}{n^2 + 2n} = \frac{\frac{1}{4} + \frac{1}{2}}{\frac{1}{4} + 1} = \frac{\frac{3}{4}}{\frac{5}{4}} = \boxed{\frac{3}{5}}$$