

این معادله را حل کنید

$$x \rightarrow f(-x) - x f(x) = \gamma |x| + 1 \rightarrow -x(f(-x)) + x^r f(x) = \gamma |x| + 1 \quad (1)$$

$$-x \rightarrow f(x) + x f(-x) = \gamma |x| + 1 \rightarrow x f(-x) + f(x) = \gamma |x| + 1$$

$$f(x) = \begin{cases} \frac{x^{r+1} + 1}{x^{r+1}} & x \geq 0 \\ \frac{\gamma x^r - r x + 1}{x^{r+1}} & x < 0 \end{cases}$$

$$(x^r + 1)(f(x)) = -\gamma |x| - x + \gamma |x| + 1$$

$n=0$, $f(0) = \frac{1}{0^r+1} \rightarrow f(0) = 1 \rightarrow f(x) = x^r - \gamma x + 1 \rightarrow f(x^r) = x^r - \gamma x^r + 1$

$$y n - y = x^r + n + 1 \rightarrow x^r + n(1-y) + 1 + y \rightarrow \dots$$

$$x = \frac{(y-1) \pm \sqrt{(1-y)^2 - 1-y}}{\gamma} \rightarrow y^r - \gamma y + 1 - 1 - \gamma y = y^r - \gamma y - \gamma \geq 0$$

$$(y - \gamma)(y + 1) \geq 0 \quad \frac{-1}{\gamma} \quad \frac{\gamma}{\gamma} \rightarrow R_f = [R - \gamma, \gamma]$$

a) $x_{min} = \frac{\omega}{\gamma}$, $y_{min} = -\frac{1}{\gamma}$ $R_f = [-\frac{1}{\gamma}, \gamma]$

b) $x_{max} = \frac{\omega}{\gamma}$, $y_{max} = \frac{\omega}{\gamma}$ $R_f = [\gamma, \gamma]$

c) $\lim_{x \rightarrow -\infty} f(x) = \dots$ $R_f = [0, \gamma]$

d) $\lim_{x \rightarrow \infty} f(x) = \dots$ $R_f = [R - \gamma, \gamma]$

e) $\lim_{x \rightarrow 0} f(x) = \dots$ $R_f = [\gamma, \gamma]$

f) $\lim_{x \rightarrow -\infty} f(x) = \dots$ $R_f = [R - \gamma, \gamma]$

g) $y n^r - y = \gamma n^r + 1 \rightarrow (\gamma - y)n^r + (\gamma + y) = 0$

h) $\gamma(\gamma - y) \neq 0 \rightarrow y \neq \gamma$

i) $-\gamma(\gamma - y)(\gamma + y) \geq 0 \rightarrow \gamma + y \geq 0$

j) $R_f = (-\infty, -\gamma] \cup [\gamma, +\infty)$

k) $x^r = +\infty \rightarrow \frac{\gamma \infty + \gamma}{\infty - 1} = \gamma$

l) $x^r = 0 \rightarrow \frac{\gamma}{\gamma} = 1$

m) $R_f = (-\infty, -\gamma] \cup [\gamma, +\infty)$

$$\sin n = 1 \rightarrow -n$$

$$\sin n = -1 \rightarrow -\frac{1}{n}$$

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$$R_f = \begin{bmatrix} 1 & 0 & -\frac{1}{n} \end{bmatrix}$$

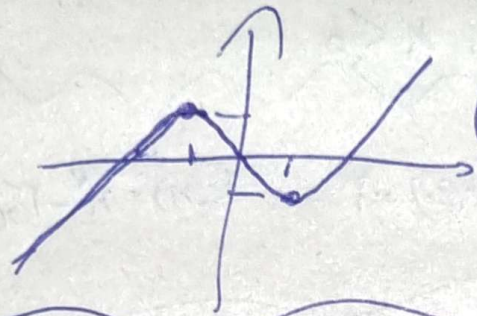
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$$R - \left\{ \frac{1}{n} \right\} = R_f$$

$$\left[0 \ 9 \ +\infty \right] - \left\{ \frac{1}{n} \right\}$$

$$\sqrt{\frac{q(n+r)}{f(n+r)}} \left\{ \frac{1}{n} \right\} = R_f$$

$$\begin{cases} n^2 - n & n \geq 0 \\ -n^2 + n & n < 0 \end{cases}$$



$$R_f = 1K$$

