

۱۴۱۲۵

$n=a \rightarrow a^2 + 2a = a^2 - \epsilon$
 $\underline{a = -2}$ \hookrightarrow $a = -2$

$f + b = 2 \rightarrow b = -1$

$\frac{f+a}{a} = 2 \rightarrow a = 11$

$f(x) = \frac{x^2 + 11}{2x + 1} \hookrightarrow f(1) = \frac{1+11}{2+1} = 4$

$\begin{cases} 2 - a + b = 0 \\ 12 + 5a + b = 0 \end{cases}$

$f(x) = \frac{fx + 1}{2x^2 - 4x + 1}$

$f(1) = \frac{5}{12}$

$-2 - 5a = 0$
 $a = -4$

$f(1) = \frac{f+1}{2-4+1}$

۱۱۲۵

~~$b = 1$~~ $b = -1$

$-2 - a + b = 0$
 $b - a = 2$

$-2 - 1 = -3$

b a

$-(fx^2 - ax - b) = (2x+1)^2 = 4x^2 + 4x + 1$
 $-fx^2 + ax + b = 4x^2 + 4x + 1$

$1 + m + 1 = 0 \hookrightarrow m = -2$

$b^2 - 4ac = m^2 - 4$

$x^2 + mx + 1 > 0 \hookrightarrow m^2 - 4 < 0$

$x^2 + mx + 1 < 0 \hookrightarrow m^2 - 4 < 0$

$m = [-2, 2]$

$\frac{\epsilon x^2 - 1}{x^2} > 0 \quad \epsilon x^2 - 1 > 0 \quad x^2 > \frac{1}{\epsilon}$

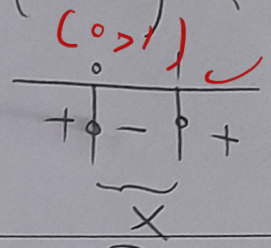
$f - \frac{1}{x} \geq 0 \Rightarrow f \geq \frac{1}{x} \quad (-\infty, -\frac{1}{r}) \cup [\frac{1}{r}, +\infty)$

$x \neq 0$
 $D_f = \mathbb{R} - (-1, 1)$

$m x^2 + 2 m x + 1 \geq 0$

$b^2 - 4ac = f_m^2 - 4m$
 $f_m^2 - 4m < 0 \quad f_m(m-1) < 0$

~~$m \in (1, +\infty)$~~
 اگر $m=0$ شد، $f(x)=1$ است
 در اینصورت برابر \mathbb{R} است و مقادیر $m \in [0, 1]$ است



$\frac{k}{r} + k = r + k = r \Rightarrow k = 0$

$a + k = \frac{1}{r}$

$f x^2 - 1 = (rx + 1)(rx - 1)$

$rx - 1 \neq 0 \Rightarrow rx \neq 1 \Rightarrow x \neq \frac{1}{r} \Rightarrow a \neq \frac{1}{r}$

$-\frac{r}{x} \times a + r = -\frac{r}{x} \times b + r \Rightarrow -ra + r = -rb + r$

$rx^2 - r \rightarrow (rx - r)(rx + r)$

$a = r \quad b = -r$

$g(x) = rx - r \rightarrow b = -r$

$a - b = r - (-r) = 2r$

$ra^2 + ra = r$

$b^2 - 4ac = r^2 + 4r = 4r^2 \Rightarrow \Delta$

$ra^2 + ra - r = 0$

$\frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-r \pm 2r}{r} = -1, 1$

$a = 1, -1$

5

1/4