

Subject:

Date: / /

نام، نام خانوادگی: ناظم زهرا جمال بزاده هم > دختر A تالیف شماره: ۲۶

$$x^2 - ax + b$$

↓

$$\frac{1 \quad 2}{+ \quad | - \quad | +}$$

(1)

$$\left. \begin{array}{l} \text{جمع برشما} \Rightarrow x = a \\ \text{ضرب برشما} \Rightarrow x = b \end{array} \right\} \rightarrow a + b = \sqrt{\quad}$$

(۲)

$$y = ((k-2)n + m - 1) (m - 2n)^2$$

$$\frac{m}{n} + k = \frac{2}{\frac{1}{2}} + 1 = \boxed{-14}$$

2	-1*	k	→	n = -1
p	+	p	+	p -

$$k - 2 = -1$$

$$\boxed{k = 1}$$

$$m - 1 = 2$$

$$\boxed{m = 3}$$

راه حل دوم سوال (۲)

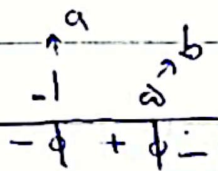
$$(k-2)n + m - 1 = n - k \rightarrow \begin{cases} k-2=1 \rightarrow k=3 \\ m-1=-2 \rightarrow \\ \downarrow \\ m=-3 \end{cases}$$

$$\frac{m}{n} + k = \frac{-3}{2} + 3 = \boxed{1.5}$$

$$m = -3$$

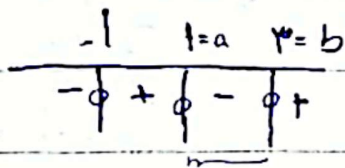
$$y = \frac{-1}{r} n^r + 9a + 4 > \frac{4}{r}$$

$$\frac{-1}{r} n^r + 9a + \frac{4}{r} > 0 \quad x = \frac{-r \pm \sqrt{9r^2 - 4}}{-1} \rightarrow n \rightarrow -1$$



$$b - a = a - (-1) = 4$$

$$f(n) = n^r - 9n^r - n + 9 = n^r(n - 9) - (n - 9) = (n - 9)(n - 1)(n + 1) \quad (K)$$



$$\frac{a+b}{r} = 9 \rightarrow f(9) = 1 - 19 - 9 + 9 = -9$$

$$(a-1)n^r + (a-1)n + 1 < 0 \Rightarrow a-1 < 0 \quad (a)$$

$$|a| < 1 \quad |I$$

$$I \cap II = \emptyset$$

$$\Delta < 0 \rightarrow a^2 + 1 - 2a - 2a + 1 < 0 \rightarrow a^2 - 4a + 2 < 0 \rightarrow \text{no real roots}$$



$$\frac{(a-1)(a-1)}{a^2} < 0$$

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↳ (1, a) II

$$B = \frac{m(m^r + m)}{m - r} > 0 \rightarrow m(m^r + m) > 0 \rightarrow m^r(m^r + 1) > 0 \quad (7)$$

این شرط، زمانی برقرار است که $m \neq 0$ و $m^r \neq 0$

$\downarrow m > r$

$$\{m \mid m \neq 0\} \cap \{m \mid m > r\} \rightarrow m > r \Rightarrow m \in (r, +\infty)$$

$$\frac{(n^r - n - 1)(n - 1)^r}{(n^r + n + 1)(r - n)^r} \leq 0$$

$\downarrow r$

$$\frac{-r \quad 1 \quad r \quad r}{+ \quad - \quad - \quad + \quad -} \Rightarrow [-r, r) \cup [r, +\infty)$$

$$\frac{r n^r - r n}{n^r + \varepsilon} < r \rightarrow \frac{r n^r - r n - r}{n^r + \varepsilon} < 0 \rightarrow \frac{r n^r - r n - r n^r - 1}{n^r + \varepsilon} < 0 \quad (8)$$

$$\rightarrow \frac{n^r - r n - 1}{n^r + \varepsilon} < 0 \rightarrow \frac{(n - r)(n + r)}{n^r + r} < 0 \Rightarrow (-r, \varepsilon)$$

$$-1 < \frac{r n^r - r n}{n + 1} < 0 \quad (9)$$

① $\rightarrow \frac{r n^r - r n}{n + 1} < 0$

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

I \cap II = $(0, \frac{r}{r-1})$

$$\frac{n^r - 10}{n} \leq r \rightarrow \frac{n^r - 10 - r n}{n} \leq 0 \rightarrow \frac{(n - 10)(n + r)}{n} \leq 0 \quad (10)$$

$$\frac{-r \quad 0 \quad \infty}{- \quad + \quad - \quad +} \rightarrow (-\infty, -r] \cup (0, \infty)$$

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