

te:

Sub: (B دھم)

(طالعہ جبری)

- 1

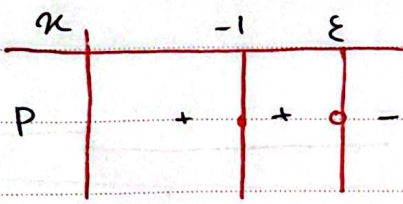
$$1 < n < 3 \quad (n-1)(n-3) = n^2 - \epsilon n + 3$$

$$a = \epsilon \quad a + b = v$$

$$b = 3$$

- 2

$$y = ((k-2)n + m - 1) (n - 3n)^2$$



رشته -1

$$-1 - 3n = 0$$

$$(n = -\frac{1}{3})$$

$$(k \in \mathbb{N} \rightarrow k-2 < 0 \quad (k=1))$$

$$-n + m - 1 \quad \text{if } n = \epsilon \rightarrow -\epsilon - 1 + m = 0$$

$$(m = a)$$

$$\frac{m}{n} + k = -\frac{a}{\frac{1}{3}} + (+1) = (-14)$$

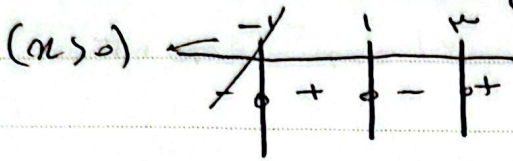
$$-\frac{1}{3} n^2 + 2n + 4 > \frac{v}{r} \xrightarrow{\times 3}$$

$$-n^2 + \epsilon n + 12 > v \rightarrow -n^2 + \epsilon n + a > 0$$

$$(1-n)(n-a) > 0 \rightarrow -1 < n < a \quad b-a = a+1$$

$$f(x) = x^3 - 3x^2 - x + 3 < 0 \quad - 4$$

$$x^2(x-3) - (x-3) \rightarrow (x+1)(x-1)(x-3)$$



$$(a, b) \rightarrow (1, 3)$$

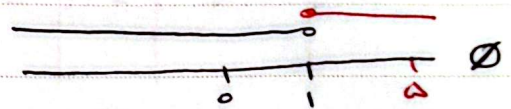
تطبیق $\Rightarrow 2$

$$f(2) = 1 - 12 - 2 + 3 = -10$$

- 5

$$(a-1)x^2 + (a-1)x + 1$$

هوادستی $\rightarrow \Delta < 0 \quad a-1 < 0$



1 $\rightarrow a-1 < 0 \quad a < 1 \quad (-\infty, 1) \cup (a, \infty) \rightarrow \emptyset$

2 $\rightarrow a^2 + 1 - 2a - \epsilon a + \epsilon = a^2 - 2a + 1 < 0$

$$(a-1)(a-1) < 0 \quad (1 < a < \infty) \rightarrow a \in (1, \infty)$$

هوادستی

$$\frac{m(m^2 + m)}{m-2} \rightarrow \frac{m^2 + m}{m-2}$$

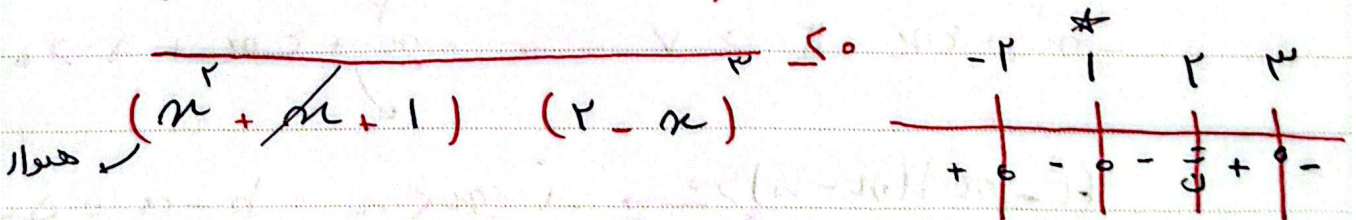
- 6

$$m \neq 0$$

$$m-2 > 0 \quad (m > 2)$$

$$(x^2 - x - 4)(x-1)^2$$

- 7



$$\frac{(x+2)(x-4)(x-1)^2}{(x-2)^2} \leq 0$$

$$(x) \rightarrow [-2, 2) \cup [4, \infty)$$

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$$f(x) = \frac{3x^2 - 2x}{x^2 + \varepsilon} < 2 \quad - 8$$

$$\frac{3x^2 - 2x - 2x^2 - 2\varepsilon}{x^2 + \varepsilon} < 0 \quad \rightarrow \quad \frac{x^2 - 2x - 2\varepsilon}{x^2 + \varepsilon}$$

(مقدار مثبت)

$$(x^2 - \varepsilon)(x + 2)$$

$$\begin{array}{c} -2 \quad 2 \\ + \quad - \quad + \end{array}$$

$$(-2 < x < 2) \quad (a, b) \Rightarrow (-2, 2) \quad (2 - (-2)) = 4$$

$$-1 < \frac{3x^2 - \varepsilon x}{x + 1} < 0 \quad - 9$$

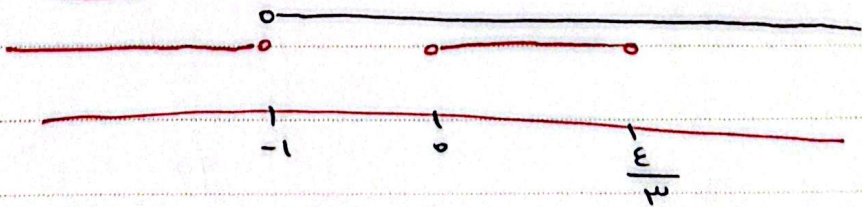
$$1 - \frac{x(3x - \varepsilon)}{x + 1} < 0$$

$$\begin{array}{c} -1 \quad 0 \quad \frac{\varepsilon}{3} \\ - \quad + \quad - \quad + \end{array}$$

$$2 - \quad 0 < \frac{3x^2 - \varepsilon x + x + 1}{x + 1} \rightarrow \frac{3x^2 - \varepsilon x + 1}{x + 1} > 0$$

(مقدار مثبت)

$$x + 1 > 0 \quad (x > -1)$$



$$(0, \frac{\varepsilon}{3})$$

ate:

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10

$$\frac{n^2 - 10}{n} \leq 0 \quad \text{or} \quad \frac{n^2 - 7n - 10}{n} \leq 0$$

$$\frac{(n + 1)(n - 10)}{n} \leq 0 \quad \wedge \quad \frac{-7 \quad 0 \quad 10}{- \quad + \quad - \quad +}$$

$$n \rightarrow (-\infty, -1] \cup (0, 10]$$