

$$\begin{array}{c} 1 \quad 3 \\ + \quad - \\ \hline \end{array}$$

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

$$-a+b=-1$$

$$\rightarrow a-b=1$$

$$\begin{cases} 2a-b=9 \\ -a-b=-1 \end{cases}$$

$$x=3 \rightarrow 9-3a+b=1$$

$$3a-b=8$$

$$\left. \begin{array}{l} 2a=1 \quad a=1/2 \\ b=3 \end{array} \right\} + = v$$

$$\Rightarrow -1 = \dots$$

$$\begin{array}{c} 1 \quad 3 \\ + \quad - \\ \hline \end{array}$$

$$(-1-3n)^2 \leq 0 \quad (3n+1)^2 = 9n^2 + 1 + 6n$$

$$3n \leq -1$$

$$n \leq -\frac{1}{3}$$

$$x=3 \rightarrow f(k-2) + m-1 = f(k-1) + m-1$$

$$\rightarrow f(k+m-9) \leq 0 \quad k=1 \quad \left[\begin{array}{l} m \leq 8 \\ f(k+m)=9 \end{array} \right]$$

$$k \leq 1$$

$$m \leq 8$$

$$n = -\frac{1}{3} \rightarrow \frac{\delta}{-\frac{1}{3}} + 1 = -1f$$

$$\left. \begin{array}{l} k=2 \\ k=3 \\ m \leq 1 \\ n \leq -\frac{1}{3} \end{array} \right\} m \leq 1$$

$$\Rightarrow \frac{n^2}{n} + k = -3 + 2 \leq -1$$

$$-\frac{1}{3}m^2 + 2m + 4 > \frac{4}{3} \rightarrow -\frac{1}{3}n^2 + 2m + \frac{\delta}{3} > 0 \Rightarrow n^2 - 6m - \delta \leq -3$$

$$(m-\delta)(n+1) \leq 0 \rightarrow m \leq \delta, -1$$

$$\frac{\delta-1}{-|+|-}$$

$$a=-1 \quad b=\delta \quad \frac{\delta-1}{b-a} = 4$$

$$x^2(x-3) - (x-3) \leq 0 \rightarrow (x-3)(x^2-1) \leq 0$$

$$\downarrow$$

$$(x-1)(x+1)$$

$$\begin{array}{c} 1 \quad 3 \\ - \quad + \\ \hline \end{array}$$

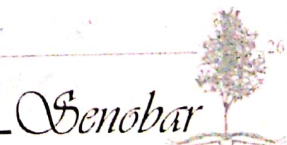
$$\rightarrow (1, 3) \cup (-\infty, -1) \Rightarrow$$

$$(-\infty, -1) \cap (0, +\infty) = \emptyset$$

$$(1, 3) \cap (0, +\infty) = (1, 3)$$

$$L(x) = x^3 - (3x^2) - 2 + 3 \leq -3$$

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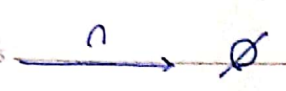
$$(\alpha - 1)x^r + (\alpha - 1)x + 1 < 0 \Rightarrow b^r - rax < 0 \Rightarrow (\alpha - 1)^r - r(\alpha - 1) < 0$$

$$\rightarrow \alpha < 1 \quad \Delta < 0 \quad \alpha - 1 < 0 \quad \boxed{\alpha < 1}$$

$$\alpha^{r+1} - r\alpha - r\alpha + r < 0 \quad \alpha^r - r\alpha + \delta < 0 \quad (\alpha - 1)(\alpha - \delta) < 0$$

$$\frac{1}{-r} \quad \frac{\delta}{-r} \quad \boxed{\alpha < 1} \quad \boxed{\alpha < \delta}$$

$$1 < \alpha < \delta$$



$$\frac{m(m^r - r)}{m - r} > 0 \Rightarrow \frac{m^r(m^r + 1)}{m - r} > 0 \Rightarrow m_2(r, +\infty)$$

$m < r \quad r = 0 \times$

$$\frac{(x-r)(x+r)(x-1)^r}{(x^r + x + 1)(r-x)^r} < 0 \Rightarrow \frac{-r}{-r} + \frac{1}{r} + \frac{r}{-r} < 0$$

$\Delta x: a >$

$$(-\infty, -r] \cup [r, r)$$

$$\frac{r\alpha^r - r\alpha}{\alpha^r + r} < 0 \Rightarrow \frac{r\alpha^r - r\alpha - r(\alpha^r + r)}{\alpha^r + r} < 0 \Rightarrow \frac{r\alpha^r - r\alpha - r\alpha^r - r}{\alpha^r + r} < 0$$

$$\frac{\alpha^r - r\alpha - 1}{\alpha^r + r} < 0 \Rightarrow \frac{(a-r)(a+r)}{\alpha^r + r} < 0 \Rightarrow \frac{-r}{+r} + \frac{r}{-r} < 0$$

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$$a < b$$

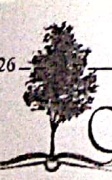
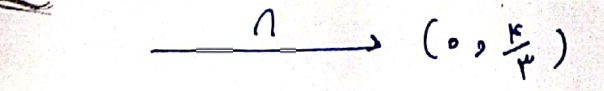
$$a = (-r, r) \Rightarrow b - a \leq 4$$

$$1 < \frac{r\alpha^r - r\alpha}{\alpha + 1} \Rightarrow \frac{r\alpha^r - r\alpha}{\alpha + 1} > 1 \Rightarrow \frac{r\alpha^r - r\alpha + \alpha + 1}{\alpha + 1} > 0$$

$$\frac{r\alpha^r - r\alpha + 1}{\alpha + 1} > 0 \Rightarrow (-1, +\infty)$$

$$\frac{r\alpha^r - r\alpha}{\alpha + 1} < 0 \Rightarrow \frac{r\alpha^r - r\alpha}{\alpha + 1} < 0 \Rightarrow \frac{-1}{-1} + \frac{r}{-r} < 0$$

$$(-\infty, -1) \cup (0, \frac{r}{r})$$



Genobar

$$\frac{x^2 - 10}{x} < 0 \rightarrow \frac{x^2 - 10 + 10x}{x} < 0 \rightarrow \frac{(x-8)(x+2) - 10}{x} < 0$$

$$\frac{-2 \quad 0 \quad 8}{- \phi + \quad | \quad - \phi +}$$

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$$\rightarrow (-\infty, -2] \cup [0, +\infty)$$