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$$y = -\frac{1}{3}x^2 + \frac{2}{3}x + 1 \longrightarrow a = -\frac{1}{3} \Rightarrow x_{\text{ج}} = (\varepsilon, 3) \quad (1)$$

$$y = -\frac{1}{3}(x-\varepsilon)^2 + 3 \longrightarrow -\frac{1}{3}(x-\varepsilon)^2 + 3 = 0 \quad \text{بح } (x-\varepsilon)^2 = 9$$

$$\frac{x = \varepsilon + 3}{x = \varepsilon - 3}$$

رأس $f(u)$ ، 1

رأس $f'(u)$ ، $1 - 2f(3u+2)$

$$y = 1 - 2f\left(3\left(-\frac{1}{3}\right) + 2\right)$$

$$3u + 2 = 1 \quad 3u = -1 \quad \leftarrow$$

$$\Delta B = -\frac{1}{3} \times -1 = \frac{1}{3}$$

$$\frac{x = -\frac{1}{3}}{\alpha}$$

$$y' = 1 - 2(\varepsilon) = -1$$

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$$y = 3 - \sqrt{2u} \xrightarrow{\text{نقطة} +} 3 - \sqrt{2(u+1)} \xrightarrow{\text{قرينة} u} \sqrt{2u+2} - 3 \xrightarrow{y+\Delta} \sqrt{2u+2} + 2 \quad (3)$$

$$\sqrt{2u+2} + 2 = \frac{1}{2} \quad \sqrt{2u+2} = \frac{1}{2} - 2 \quad 2u+2 = \frac{1}{4} \quad 2u = \frac{1}{4} - 2 \quad u = \frac{1}{8} - 1 \quad x = \frac{1}{8}$$

$$Df_2(a, \varepsilon) \quad Dg = [-1, b) \quad y = f(u-1) + g(u+1) \quad (4)$$

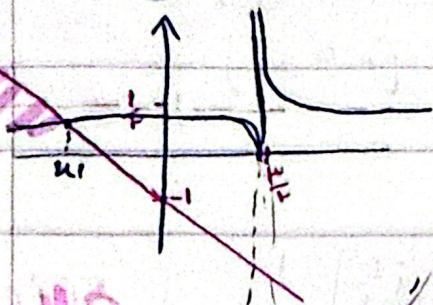
$$a(u-1) < \varepsilon, a+1 < u < a+1 \quad (1) \quad -1 < u+1 < b, -1 < u < b-1$$

$$(1) \cap (2) = (-1, \omega) \quad a+1 = -1 \quad a = -2$$

$$D-1 = \omega \quad b = 4 \quad a-b = -9$$

$$f(u) = \left| \frac{u+1}{2u+1} \right| \xrightarrow[\text{بی نهایت است}]{\text{۲ تا ۳ است}} f'(u) = \left| \frac{u-1}{2u-3} \right| + 1 = g(u) \quad (9)$$

$$u + g(u) < 0 \quad \left| \frac{u-1}{2u-3} \right| < -u-1 \quad \text{شکل ۳ رسم}$$



$$u' \Rightarrow \left| \frac{u'-1}{2u'-3} \right| = -u'-1$$

$$u'-1 = -2u'+u'+3 \quad \oplus \quad \frac{u'-1}{2u'-3} > -u'-1$$

$$2u'^2 = \varepsilon \quad u'^2 = 2 \quad u' = \pm \sqrt{2}$$

$$\text{جواب} = (-\infty, -\sqrt{2}) \quad \text{مورد قبول است}$$

$$g(u) = \sqrt{2u f(u) - f(u)^2} \xrightarrow{\text{دانه}} f(u)(2u - f(u)) \quad (10)$$

$$\begin{array}{c} 0 \\ - \quad + \quad - \\ 0 \quad 2 \end{array}$$

تعیین علامت

$$f(u) = 0 \quad u > 0 \quad f(u) = 2u$$

شکل ۳ عدد مربع است
عدد ۳ $\Rightarrow$ ۱ و ۲ و ۳

نور