

$$2(a+1)(\delta+1) = 3a + 2(-2) + a \Rightarrow 18a + 18 = 8a - 8 \Rightarrow 10a = -18 \Rightarrow a = -1.8$$

$$f\left(\frac{\varepsilon - \sqrt{\varepsilon}}{2}\right) + f\left(\frac{\varepsilon + \sqrt{\varepsilon}}{2}\right) = f\left(\frac{(\sqrt{\varepsilon} - 1)^2}{2}\right) + f\left(\frac{(\sqrt{\varepsilon} + 1)^2}{2}\right)$$

$$\Rightarrow \frac{\sqrt{\varepsilon} - 1}{\sqrt{\varepsilon}} + \frac{\sqrt{\varepsilon}}{\sqrt{\varepsilon} - 1} + 2 + \frac{\sqrt{\varepsilon} + 1}{\sqrt{\varepsilon}} + \frac{\sqrt{\varepsilon}}{\sqrt{\varepsilon} + 1} + 2 = \frac{\sqrt{\varepsilon} - 1}{\sqrt{\varepsilon}} + \frac{\sqrt{\varepsilon} + 1}{\sqrt{\varepsilon}} + \frac{\sqrt{\varepsilon} + 1}{\sqrt{\varepsilon}} + \frac{\sqrt{\varepsilon} - 1}{\sqrt{\varepsilon}} + 4$$

$$= \frac{\varepsilon\sqrt{\varepsilon}}{\sqrt{\varepsilon}} + 8 = 2\sqrt{\varepsilon} + 8$$

$$\begin{cases} f(u) - cf(-u) = \varepsilon u^r - u \\ f(-u) - cf(u) = \varepsilon u^r + u \end{cases} \Rightarrow \begin{cases} f(u) - \gamma f(-u) = \Lambda u^r - \varepsilon u \\ \gamma f(-u) - q f(u) = 2\varepsilon u^r + \varepsilon u \end{cases}$$

$$\Rightarrow -\gamma f(u) = \varepsilon u^r + u \Rightarrow f(u) = -\varepsilon u^r - \frac{u}{\gamma}$$

$$u = 0 \Rightarrow cf(0) = \varepsilon m - 1, \quad u = -2 \Rightarrow \gamma f(0) = \gamma m + 1$$

$$\Rightarrow \varepsilon(\varepsilon m - 1) = \gamma m + 1 \Rightarrow qm - \varepsilon = \gamma m + 1 \Rightarrow \varepsilon m = 1 \Rightarrow m = \varepsilon, \gamma$$

$$cf(0) = \varepsilon(\varepsilon, \gamma) - 1 \Rightarrow f(0) = \underline{4, 2\gamma}$$

$$f(u) + f\left(\frac{1}{u}\right) = au + b + \frac{a}{u} + b = \frac{au^2 + 2bu + a}{u} = \frac{\varepsilon u^2 - 12u + \varepsilon}{u}$$

$$\Rightarrow a = \varepsilon, b = -9 \Rightarrow f(u) = \varepsilon u - 9 \Rightarrow f(-1) = -\varepsilon - 9 = \underline{-9}$$

$$D_f = (-\infty, 1] \text{ و } D_g = (-\infty, 1] \Rightarrow \text{دامنه برابر}$$

$$t = 1 - u \Rightarrow -t\sqrt{t} = f(u) \Rightarrow f(u) = g(u) \\ -\sqrt{t^3} = g(u)$$

تابع برابرند

۷- دامنه‌ها برابر $\Rightarrow D_f = [0, +\infty)$, $D_g = [0, +\infty)$

در تابع برابر $(u \geq 0)$
 $f(u) = u\sqrt{u} = \sqrt{u^3} = g(u) = \sqrt{u^3}$

۸- در تابع برابر
 $D_f = [0, +\infty)$, $D_g = [0, +\infty)$

در $f(u) = g(u)$ $\Rightarrow f(u) = g(u)$

الف) $\frac{f(x) + g(x)}{f(x) - g(x)} = \frac{x+1}{x-1} = x$

ج) $f(0)g(-1) = 0 \times (-1) = 0$

ب) $\frac{f(x) + g(x)}{f(x) - g(x)} = \frac{x^2 + x}{x^2 - x}$ تقریب نشده

الف) $3x - 1 =$ عضوهای دامنه $g(x) = \left\{ (1, 1), (0, 1), \left(\frac{1}{2}, 0\right), \left(-\frac{1}{2}, 2\right), \left(\frac{2}{3}, -1\right), (-1, -1) \right\}$

ب) $|x| =$ عضوهای دامنه $|x| = 2, 3, 0$

$\Rightarrow h(x) = \left\{ (2, 1), (-2, 1), (0, 0), (3, -1), (-3, -1) \right\}$