

$$f = \sqrt{p(u) - u + 1}$$

$$f(u) = \begin{cases} r_{n-1} & [a] > \varepsilon \\ r_{n+1} & [a] < \varepsilon \end{cases}$$

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$$[a] > \varepsilon \Rightarrow \sqrt{r_{n-1} - u + 1} \Rightarrow \sqrt{u} \rightarrow$$

$$[a] < \varepsilon \Rightarrow \sqrt{r_{n+1} - u + 1} = \sqrt{r_{n+1} + \varepsilon} \rightarrow r_{n+1} + \varepsilon \geq 0 \rightarrow u \geq -\frac{\varepsilon}{r}$$

$$D = [-\frac{\varepsilon}{r}, \varepsilon + a]$$

$$f = \frac{r \varepsilon u^3 + r \varepsilon u^2 + 1 u + r}{(r u^2 + \varepsilon u + 1)^2}$$

$$\Rightarrow \frac{r(1 u^3 + 1 u^2 + u + 1)}{(r u^2 + \varepsilon u + 1)^2}$$

$$p(r_{n+1}) (r_{n+1} - r_{n+1})$$

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$$f(p_{n+1})^2 (u + \frac{1}{r})^2$$

استفاده تجزیه ردی:

$$r(1 u^3 + 1 u^2 + u + 1) \rightarrow r((r_{n+1})(r_{n+1} - r_{n+1}) + r_{n+1}(r_{n+1} + 1))$$

صفر آفر...

$$\frac{r(r_{n+1})}{f(r_{n+1})^2 (u + \frac{1}{r})}$$

$$\rightarrow \frac{r}{f(r_{n+1})^2 (u + \frac{1}{r})}$$

$$\frac{-1/a}{+0/+}$$

$$D = [r, -1/a]$$

$$f(u) = \begin{cases} \frac{u^3 + r u^2 - u - r}{u^2 - 1} & u \neq \pm 1 \\ \frac{a u + r}{u + b} & u = \pm 1 \end{cases}$$

$$g(a) = u + r^2$$

مع ضرایب صحت ۱۰ است بر (n-1)

$$\frac{(u+r)(u+r)(u+r)}{(u+r)(u+r)} = u+r$$

$$= u+r$$

$$n \Rightarrow 0 \Rightarrow f(u) = g(u) \Rightarrow r = \frac{a}{b} + c \rightarrow c = \frac{a}{b} \quad b+c = \frac{a}{b}$$

$$u = -1 \rightarrow \frac{-a+r}{-1+b} = 1 \rightarrow -1+b = -a+r \rightarrow a+b=r$$

$$u = 1 \rightarrow r = \frac{a+r}{1+b} \Rightarrow r+b = a+r \rightarrow r-b = -1$$

$$\rightarrow \frac{1}{b} = 0/a$$

$$f(u) = \frac{u+1}{u-c} \quad g(u) = \frac{u^r-1}{u^r+au+b} \rightarrow \frac{u+1}{u-c} = \frac{(u-1)(u+1)}{u^r+au+b} \rightarrow (2-c)(u-1) = u^r+au+b$$

$$(u-c)^r = u^r + au + b$$

$$u^r + \cancel{c^r} + \cancel{r c^{r-1} u} = u^r + \cancel{a} u + \cancel{b}$$

$$a+b+c=0$$

$$-c-1 = -rc \rightarrow c=1 \quad b=1$$

$$a=-2$$

$$f(u) = (u-r)^r (u-1)$$

$$f(u+1) = (u-r)^r u$$

$$f(1-u) = -(r+u)^r u$$

$$g(u) = f(u+1) + f(1-u)$$

$$u(u^r - ru + r) - u(r+u+u^r)$$

$$u^r - ru^r + ru - ru^r - ru^r - ru - ru^r = -1u^r$$

$$f(1-u) = \begin{cases} \sqrt[r]{u} + r & u < 1 \\ r\sqrt{u} & u > 1 \end{cases}$$

$$f(1) + f(r) =$$

$$r+1 = 0$$

$$1-ru = -1 \rightarrow u=1$$

$$1-ru = r \rightarrow u = -1$$

$$f(u+\sqrt{u}) = u\xi + ru \rightarrow \xi^r + r\xi = r\xi$$

$$u+\sqrt{u} = \xi \rightarrow u = \xi$$

$$f(u) = u^r + u$$

$$f(u-1) + f(1-u)$$

$$(u-1)^r + u + (1-u)^r + 1-u \Rightarrow u^r - 1 - r u^{r-1} + ru + 1 - u^r + ru^{r-1} - ru = 0$$

$$f(u) = \sqrt{ru - ra} + k-1$$

$$g(u) = \sqrt{b-fu} + rk$$

$$ru - ra > 0 \rightarrow u > \frac{ra}{r}$$

$$b - fu > 0 \rightarrow u < \frac{b}{f}$$

$$\left[\frac{ra}{r}, \frac{b}{f} \right] \rightarrow \frac{ra}{r} = 1 \quad \frac{b}{f} = 1 \rightarrow b = f$$

$$ru - ra = 0 \rightarrow f(1) = k-1$$

$$b - fu = 0 \rightarrow g(1) = rk$$

$$(f f - g) (1) = k$$

$$f(k-1) - rk' = k \rightarrow k = 1$$

$$ra - \frac{b}{f} - k = \mu$$

$$f(u) = \sqrt{m-u} + n \quad g(u) = \sqrt{ru+r}$$

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$$(f-g)(u) = r\sqrt{r} \quad m+n=?$$

$$D_{f,g} = [-1, r]$$

$$g(u) = \sqrt{r} = r\sqrt{r}$$

$$f(u) - g(u) = r\sqrt{r} \rightarrow f(u) = r\sqrt{r}$$

$$f(u) = \sqrt{m-u} + n = r\sqrt{r} \Rightarrow \sqrt{m-u} + n = r\sqrt{r}$$

$$m+n = 2 + r\sqrt{r}$$

$$D_g: u \geq -1 \quad D_f: m-u \geq 0 \rightarrow u \leq m$$

$$D_{f,g} = m-u \geq 0 \rightarrow u \leq m$$

$m=r$ this is the answer

$$f(u) = u^r + u$$

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$$f(u-1) + f(1-u)$$

$$(u-1)^r + u + (1-u)^r + 1-u \Rightarrow u^r - 1 - r u^{r-1} + r u + 1 - u^r + r u^{r-1} - r u = 0$$

$$f(u) = \sqrt{ru - ra} + k-1$$

$$g(u) = \sqrt{b-ru} + rk$$

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$$ru - ra \geq 0 \rightarrow u \geq \frac{ra}{r}$$

$$b - ru \geq 0 \rightarrow u \leq \frac{b}{r}$$

$$\left[\frac{ra}{r}, \frac{b}{r} \right] \rightarrow \frac{ra}{r} = 1 \quad \frac{b}{r} = 1 \rightarrow b = r$$

$$r - ra = 0 \rightarrow f(u) = k-1$$

$$b - r = 0 \rightarrow g(u) = rk$$

$$(f-g)(u) = k$$

$$r(k-1) - rk = k \rightarrow k = -1$$

$$ra - \frac{b}{r} - k = \mu$$

$$y = \frac{r(n^r + 1r^{r-1} + 4n+1)}{(r_n+1)^r} = \frac{r(r_{n+1})^r}{(r_n+1)^r} = \frac{r}{r_{n+1}}$$

$$\Rightarrow Dy = 1R - \{ \frac{1}{r} \}$$