

عرفان حقیقہ یازدهم ریاضی، سیر A

$$(1) \text{ ریشه } n-2 = 0 \rightarrow n-2 \rightarrow n+1=2 \rightarrow n=1$$

$$\begin{array}{c|c|c|c|c} x & & & & \\ \hline p & - & + & + & - \end{array}$$

$$Df = [0, 1]$$

$$n + |n+2| \geq 0 \rightarrow |n+2| \geq -n \rightarrow n^2 + 4n + 4 \geq n^2 \quad (2)$$

$$n+2 \geq 0 \rightarrow n \geq -2 \Rightarrow Df = [-2, \infty)$$

$$Df(-n) = [-\infty, 1]$$

$$\begin{array}{c|c|c|c|c} -r & q & r & r & \\ \hline - & + & - & + & \times \\ \hline 0 & = & 0 & = & 0 \end{array}$$

$$Df = (-r, 1] \cup (r, r)$$

(3)

$$(n^2 + an + b)(an^2 + bn + c) \Rightarrow (n^2 + an - r)(n^2 + bn + 1) \quad (4)$$

$$\Rightarrow 9n^2 + 4n^2b + 4n^2 + 4n^2a + n^2ab + an - 9n^2 - 3bn - 3$$

چون ریشه در صفر
نیست

$$4n^2(a+b) = 0 \Rightarrow a+b=0 \Rightarrow a=-b$$

$$\Rightarrow -4n^2 + abn^2 = -4 \Rightarrow ab = -1$$

$$-3bn + an \Rightarrow -3b + a = -r \Rightarrow -3b - b = -r \Rightarrow b=1, a=-1$$

$$(n^2 - n - r)(n^2 + n + 1) \Rightarrow \left. \begin{array}{l} a = -1 \\ b = -r \end{array} \right\} \Rightarrow \boxed{\sqrt{r} = r}$$

$$n^r + n - \frac{r}{n^r} - \frac{r}{n} \geq \dots \Rightarrow \frac{n^r + n^r - rn^r - r}{n^r} \quad (w)$$

$$\Rightarrow n^r = t^r + t^r - r + - r \Rightarrow (t-r) (t^r + \omega t + 1)$$

$$\frac{(n^r - r) (n^r + \omega n^r + 1)}{n^r} \geq \frac{-r}{-1 + \dots} = -r +$$

$$Df = [-r, \dots) \cup [r, +\infty)$$

$$n^r + n = r \rightarrow n = 1 \Rightarrow r - 1 = 1$$

$$n^r + n = 1 \rightarrow n = r \Rightarrow 1 - 1 = 0$$

$$1 + 0 = 1$$

$$f(n) = (n-r) + 1 \rightarrow f(\sqrt[r]{r} + r) = 1.$$

$$g(n) = (n+r) - r \Rightarrow g(\sqrt[r]{r} - r) = -r.$$

$$\frac{-r}{1} = -r$$

(1) تبدیل به درجه 2 :

$$\sqrt{n-r} \sqrt{n-r} \Rightarrow \sqrt{(n-r) - r \sqrt{n-r} + r} \Rightarrow \sqrt{((n-r) - r)^r}$$

$$\sqrt{n+r} \sqrt{n-r} \Rightarrow \sqrt{(n-r) + r \sqrt{n-r} + r} \Rightarrow \sqrt{(\sqrt{n-r} + r)^r}$$

$$\left| \sqrt{n-r} - r \right| + \left| \sqrt{n-r} + r \right| \xrightarrow{n \rightarrow r} r \sqrt{n-r} \Rightarrow a = ,$$

$$\boxed{\frac{r}{-r} = -\frac{1}{r}} \quad b = r \quad c = -r$$

(9)

$$f(n) \text{ مشترک} = \left\{ (r, -1), \left(0, \frac{r}{r}\right) \right\}$$

$$\frac{g}{f} = \left\{ \left(r, -\frac{1}{r}\right), (0, r) \right\}$$

$$f(rn) = \left\{ \left(\frac{1}{r}, r\right), \left(\frac{r}{r}, -1\right), (r, r) \left(-\frac{1}{r}, r\right) \right\}$$

$$f(n^r) = \left\{ (1, r), (\pm\sqrt{r}, -1), (\pm r, r) \right\}$$

$$r g^r(n) + 1 = \left\{ (-r, 1), (1, r), (r, r), (-1, 1) \right\}$$

$$\frac{rf}{g} = \left\{ (1, -r), (r, -1) \right\}$$