

۲۰ آفینیت

معمولاً نمی‌توانیم به این روش جواب دهیم

$$\begin{aligned} \text{طبیعیاتی } n \rightarrow f(-n) - n f(n) &= 2|n| + 1 \\ -n \rightarrow f(n) + n f(-n) &= 2|n| + 1 \end{aligned} \quad \text{I}$$

$$\begin{aligned} f(n) &= f(-n) - n f(n) = 2|n| + 1 \\ -n f(-n) + n f(n) &= -2|n| + n - n \end{aligned} \quad \text{II}$$

$$\text{II, I} \Rightarrow (1+n)f(n) = 2|-n| + 1 - 2|n| + n - n \Rightarrow (1+n)f(n) = -2n^2 + n + 1$$

$$f(n) = \begin{cases} \frac{-2n^2 + n + 1}{n^2 + 1} & n > 0 \\ \frac{+2n^2 - n + 1}{n^2 + 1} & n < 0 \end{cases}$$

$$\Rightarrow (1-n)f(n) = \frac{-2n^2 - n + 1}{1-n}$$

$$f(0) = 1 \rightarrow f(0) = 1 \rightarrow f(n) + 1 = n^2 - 2n + 1 + 1 = n^2 - 2n + 2$$

$$\Rightarrow (n^2 - 2n + 2)$$

$$y^n - y = n^2 + n + 1 \rightarrow n^2 + (1-y)n + 1 + y$$

$$\Delta \rightarrow n = y - 1 \pm \sqrt{y^2 - 4y + 1 - n - \varepsilon y} \rightarrow y^2 - 4y - 1 \geq 0 \rightarrow y \in (-\infty, -1] \cup [5, +\infty)$$

$$\text{الف } y = \sqrt{n^2 - 2n + 1} \rightarrow \text{ent} \left\{ \frac{\Delta}{2} \right\} \Rightarrow \mathbb{R} = [-1, +\infty)$$

$$-9 + 11 - 2 - 1 y = \sqrt{-n^2 + 4n - 4} \rightarrow \text{ent} \left\{ \frac{\Delta}{2} \right\} \Rightarrow \mathbb{R} = [2, +\infty)$$

$$g) y = \sqrt{n^2 - 2n + \varepsilon n + 1} \Rightarrow \mathbb{R} = [0, +\infty)$$

$$h) y = (g(n^2 - 4n^2 + 7n + \varepsilon))$$

$$\text{الف } \frac{2n+1}{n-4} \rightarrow \mathbb{R} = \left\{ \frac{13}{7} \right\}$$

$$\rightarrow y = \sqrt{\frac{\varepsilon n + 1}{n - 2}} \Rightarrow \mathbb{R} = \{ \varepsilon \}$$

$$g) y = \frac{n^2 + \varepsilon}{\sqrt{n^2 + 3}} \Rightarrow \mathbb{R} = \left\{ \frac{4}{\sqrt{3}} \right\}$$

$$h) y = \frac{n^2 + 1}{n^2 + \varepsilon} \rightarrow \frac{n^2 + \varepsilon + 1}{n^2 + \varepsilon} - 1$$

$$t \geq \frac{\varepsilon + 1}{\varepsilon} \rightarrow t - \varepsilon \geq \frac{1}{\varepsilon} \Rightarrow \mathbb{R} = \left[\frac{1}{\varepsilon}, +\infty \right)$$

$$y^{n^*} - y = r^{n^*} + \varepsilon \rightarrow x^r(y - r^*) = y + \varepsilon \rightarrow x^r = \frac{y + \varepsilon}{y - r^*} \leftarrow \text{المطلوب}$$

$\min \rightarrow 0 \rightarrow \frac{\sum}{-1} = -4$
 $\max \rightarrow +\infty \rightarrow \frac{3(+\infty) + 2}{(+\infty) - 1} = 3$
 خروج سون مندرجہ، جامع دھار $(-\infty, -4] \cup (3, +\infty)$

$$\frac{g(n) \cdot \frac{\sin n + \varepsilon}{\sin n - \varepsilon}}{\text{قرص} \neq 0} \quad \text{ب. ۲}$$

$\therefore y = \sqrt{\frac{9n-11}{-1+\varepsilon n}} \rightarrow \sqrt{\frac{9(n-2)}{\varepsilon(n-2)}}$

$y = n/m - \Gamma_n$ $\frac{2}{\sqrt{2}} - 9$

10 - نمودار $f(x)$ به صورت مقید:

$y = |f(|x|) + 1|$

دوباره صورت مقید

(2)

$y = |f(|x|) + 1|$

A hand-drawn graph on a Cartesian coordinate system. The x-axis and y-axis are shown. A curve is plotted that is symmetric about the y-axis. The curve has a central peak at the y-axis and several smaller peaks and valleys on either side, resembling a series of nested parabolas. A red checkmark is drawn in the upper right quadrant of the graph.