

$$\log_a b > c \begin{cases} b > 1 \\ 0 < b < 1 \end{cases} \rightarrow \begin{cases} a > b^c \\ a < b^c \end{cases}$$

$$f(n) = \sqrt{\log_{0.15} \log_{0.15}^{(n+1)}} \geq 0$$

دایره

$$f(n-1) > 0 \rightarrow f(n) > 1 \rightarrow n > \frac{1}{2}$$

$$D_f = \square \cap \square \cap \square$$

$$(1, 2]$$

$$\log_{0.15}^{(n-1)} > 0 \rightarrow f(n-1) > 1 \rightarrow f(n) > 2 \rightarrow n > 1$$

$$n \leq 3$$

$$\log_{0.15} \log_{0.15}^{(n-1)} > 0 \rightarrow \log_{0.15}^{(n-1)} \leq 1 \rightarrow f(n-1) \leq 2 \rightarrow f(n) \leq 4$$

$$y = \log(2 \cos x + 1) \rightarrow 2 \cos x + 1 > 0 \rightarrow 2 \cos x > -1$$

دایره

$$D_f = (2k\pi - \frac{2\pi}{3}, 2k\pi + \frac{2\pi}{3})$$



$$\cos x > -\frac{1}{2}$$

$$y = \sqrt{\log \frac{n-1}{n+1}}$$

$$\frac{n-1}{n+1} > 0 \rightarrow \frac{-1}{+3-1} \rightarrow \frac{-1}{2}$$

$$\log \frac{n-1}{n+1} \geq 0 \rightarrow \frac{n-1}{n+1} \geq 1 \rightarrow \frac{-2}{n+1} \geq 0$$

$$D_f = (-\infty, -1)$$

$$f(n) = \sqrt{a+2n^2+an+b} \rightarrow \text{میزان } (-\infty, 3] \text{ تقریبی}$$

$$a+2 \geq 0$$

$$-2n+b \geq 0$$

$$a \geq -2$$

$$-2n \geq -b$$

$$n \leq \frac{b}{2}$$

$$n \leq \frac{b}{2} \rightarrow \frac{b}{2} = 3 \rightarrow b = 6$$

$$f(n) = \sqrt{n^2+2n+2-m^2} \rightarrow \text{مقدار صحیح } m \text{ با } a, b \text{ اعداد صحیح}$$

$$a \leq 0 \quad b^2 - 4ac \leq 0$$

$$1 - 4(2-m^2) \leq 0$$

مقدار صحیح m

$$a > 0$$

$$1 - 8 + 4m^2 \leq 0$$

$$m^2 \leq 1$$

$$1 - (-1) = 2$$

$$-1 \leq m \leq 1$$

$$f(n) = \sqrt{4-n^2} \rightarrow [n] + [-n] + 1$$

$$4-n^2 \geq 0 \rightarrow n^2 \leq 4$$

مقدار صحیح در این تابع است؟

$$-2 \leq n \leq 2$$

$$[n] + [-n] + 1 \neq 0$$

$$D_f = \{-2, -1, 0, 1, 2\}$$

$$[n] + [-n] \neq -1$$

اعداد

$$-1 < n < 0 \quad \text{اعداد صحیح}$$