

$$t_n = \frac{(-1)^n}{\sqrt{n+2}}$$

$$t_{113} = \frac{(-1)^{113}}{\sqrt{115}} = \frac{-1}{\sqrt{115}} = \boxed{-\frac{1}{\sqrt{115}}}$$

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فاطمه حکیم العی

$$t_n = 2n - \left\lfloor \frac{n}{2} \right\rfloor$$

$$t_{13} = 24 - \left\lfloor \frac{13}{2} \right\rfloor = 24 - 6 = \boxed{18}$$

$$\left\lfloor \frac{13}{2} \right\rfloor = 6$$

جواب سوال ایذا در سبب ص نوشتن این جواب سوال 2 است

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تکلیف 10

نورده هم

دسته

دختران

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$$t_n = 2n - 10$$

$$2n - 10 = 0 \Rightarrow n = 5$$

$$\frac{5}{-1} +$$

if $1 \leq n \leq 5$

$$5 - 1 = \boxed{4}$$

$$t_n = n^2 - 14n + 40$$

$$n^2 - 14n + 40 = (n-10)(n-4) = 0$$

$$\frac{4}{+} \frac{10}{+}$$

if $4 \leq n \leq 10$

$$(10-4) - 1 = \boxed{5}$$

$$t_n = 2n - 14$$

$$2n - 14 = 0 \Rightarrow n = 7$$

$$\frac{7}{-1} +$$

if $1 \leq n \leq 7$

$$(7-1) + 1 = \boxed{7}$$

$$t_n = n^2 - 12n + 27$$

$$n^2 - 12n + 27 = (n-9)(n-3) = 0$$

$$\frac{3}{+} \frac{9}{+}$$

$$n \in \mathbb{N}$$

$$3 \leq n \leq 9 \quad (9-3) + 1 = \boxed{7}$$

$$d = \frac{t_9 - t_1}{9-1} = \frac{22-7}{8} = \frac{15}{8}$$

$$d = \frac{t_m - t_n}{m-n}$$

$$t_1 = a_1 + r d = 7 \Rightarrow a_1 = -\frac{1}{8}$$

$$t_n = t_1 + (n-1)d$$

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$$t_1 = \frac{a_1}{-r} + r d = \boxed{7}$$

الف) $t_n = n^2 - 4n + 2$ ~~$n^2 - 4n + 2$~~ ~~$n^2 - 4n + 2$~~

$t_1 = 1 - 4 + 2 = -1$ $t_2 = 4 - 8 + 2 = -2$ $-1, -2, -3, -4, -5, \dots$

$a > 0 \Rightarrow \min \Rightarrow x_{\min} = \frac{4}{2} = 2$ $y_{\min} = 2^2 - 4(2) + 2 = -2$

ب) $t_n = n^2 + 4n + 1$ $\begin{pmatrix} 4 \\ t_1 \end{pmatrix} \begin{pmatrix} 12 \\ t_2 \end{pmatrix} \begin{pmatrix} 22 \\ t_3 \end{pmatrix}$

$a > 0 \Rightarrow \min \Rightarrow x_{\min} = \frac{-4}{2} = -2$ $\rightarrow$ معنی است در صورتی که n باشد $x=1$ برای کمترین مقدار $1^2 + 4 + 1 = 6$

$-1, -2, -3, -4, -5, \dots$

$a = \frac{\text{اختلاف اختلافها}}{2} = \frac{2}{2} = 1$

$C = \text{توهم} = 1$

$x^2 + b x + a \xrightarrow{x=1} 1 + b + 1 = -4 \Rightarrow b = -6$

$a_n = n^2 - 4n + 1$

$a_{10} = 100 - 40 + 1 = 61$

$t_n = -1, -4, -9, -16, -25, \dots$

$C = \text{توهم} = -1$

$a = \frac{\text{اختلاف اختلافها}}{2} = \frac{4}{2} = 2$

$C = \text{توهم} = -1$

$a_n = 2n^2 - n - 1$

$a_n = 2n^2 - n - 1$

الف) $t_n = 3n^2 - 1$ $t_1 = 3 \times 1 - 1 = 2$ $t_2 = 3 \times 4 - 1 = 11$ $t_3 = 3 \times 9 - 1 = 26$

t_1, t_2, t_3, t_4, t_5 $t_1 = 2, t_2 = 11, t_3 = 26, t_4 = 47, t_5 = 72$

ب) $t_n = \frac{2n+1}{n+4}$ $t_1 = \frac{3}{5} = \frac{3}{5}$ $t_2 = \frac{5}{6} = \frac{5}{6}$ $t_3 = \frac{7}{7} = 1$ $t_4 = \frac{9}{8} = \frac{9}{8}$ $t_5 = \frac{11}{9} = \frac{11}{9}$

$(-\infty, a+4], [ra+1, +\infty)$

$a+4 \leq ra+1 \Rightarrow 3 \leq a$

متناهی = یک عدد = استرک

متناهی $\cap = \emptyset$ = دو مجموعه

الف) $3, 4, 9, \dots, 99$ $a_n = 3n$ $3n = 99 \Rightarrow n = 33$

ب) $2, 4, 6, \dots, 100$ $a_n = 2n$ $2n = 100 \Rightarrow n = 50$

ج) $1, 3, 5, \dots, 100$ $a_n = 2n - 1$ $2n - 1 = 100 \Rightarrow n = 50.5$

د) $3, 4, 9, \dots, 99$ $a_n = 3n$ $3n = 99 \Rightarrow n = 33$

ه) $2, 4, 6, \dots, 100$ $a_n = 2n$ $2n = 100 \Rightarrow n = 50$

و) $1, 3, 5, \dots, 100$ $a_n = 2n - 1$ $2n - 1 = 100 \Rightarrow n = 50.5$