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$$t_n = 3n^2 - 1 \quad t_1 = 2 \quad t_2 = 3 \times (2)^2 - 1 = 11$$

$$t_3 = 3 \times (3^2) - 1 = 29 \quad t_4 = 3 \times (4^2) - 1 = 47 \quad t_5 = 3 \times (5^2) - 1 = 74$$

$$t_n = \frac{n^2 + 1}{n + 5} \rightarrow t_1 = \frac{2}{6} \quad t_2 = \frac{5}{7} \quad t_3 = \frac{10}{8} \quad t_4 = \frac{17}{9} \quad t_5 = \frac{26}{10}$$

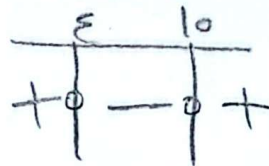
$$t_5 = \frac{2(5) + 1}{5 + 5} = \frac{11}{10}$$

$$t_n = \frac{(-1)^n}{\sqrt{n+3}} \quad t_{13} = \frac{(-1)^{13}}{\sqrt{13+3}} = \frac{-1}{4} \quad t_n = 2n - \left\lfloor \frac{n}{5} \right\rfloor \quad t_{13} = 29 - \left\lfloor \frac{13}{5} \right\rfloor$$

$$29 - \left\lfloor \frac{13}{5} \right\rfloor = 29 - \left\lfloor 2\frac{3}{5} \right\rfloor = 29 - 2 = 27$$

$$t_n = 2n - 10 \rightarrow 2n - 10 < 0 \rightarrow 2n < 10 \rightarrow n < 5, 1, 2, 3, 4$$

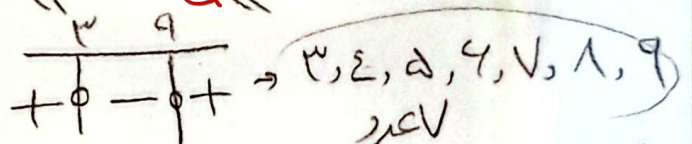
$$t_n = n^2 - 15n + 50 \rightarrow (n-10)(n-5) = 0$$



$$5, 9, 13, 17, 21 \rightarrow 5$$

$$t_n = 2n - 19 \rightarrow 2n - 19 \leq 0 \rightarrow 2n \leq 19 \rightarrow n \leq 9.5 \rightarrow 1, 2, 3, 4, 5, 6, 7, 8, 9$$

$$t_n = n^2 - 12n + 35 \rightarrow (n-7)(n-5) = 0$$



$$t_n \dots \quad t_5 = 7 \quad t_9 = 22 \quad d = \frac{22-7}{9-5} = \frac{15}{4} = 3\frac{3}{4}$$

$$t_2 = ? \rightarrow 7 - 3 = 4$$

$$t_n = n^2 - 9n + 14 \rightarrow \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow \frac{9 \pm \sqrt{81 - 56}}{2} = \frac{9 \pm 5}{2} \rightarrow n = 2, 7$$

$$t_n = n^2 + 5n + 1 \rightarrow \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-5 \pm \sqrt{25 - 4}}{2} = \frac{-5 \pm \sqrt{21}}{2}$$

$$t_n = -4, -7, -11, -16, -21, \dots \quad a = \frac{1}{2} \times 2 = 1$$

$$C = 1 \quad b = -9 \quad n^2 + bn + 1 \rightarrow 1 + b + 1 = -9$$

$$t_n = n^2 - 9n + 1 \quad n = 10 \rightarrow 100 - 90 + 1 = 11$$

$$t_n = -9, -1, 1, 11, \dots \quad a = \frac{\varepsilon}{2} = 2$$

$$\begin{array}{cccc} +1 & +a & +9 & +11 \\ & \swarrow & \searrow & \\ & +\varepsilon & +\varepsilon & \end{array}$$

$$pn^2 + bn + (-V)$$

$$p+b-V = -9 \quad b = -1$$

$$t_n = pn^2 - n - V$$

$$(-\infty, a+\varepsilon], [pa+1, +\infty) \rightarrow$$

$$a+\varepsilon < pa+1$$

$$pa < a$$

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$$pa+1 < a+\varepsilon \rightarrow a < p$$

$$pa+1$$

$$a+\varepsilon$$

$$x \leq 100 \rightarrow pn \leq 100 \quad n \leq pn, \dots \rightarrow \underline{pn}$$

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$$\omega n \leq 100 \rightarrow n \leq p_0$$

ب. p_0

$$|\omega n| \leq 100 \rightarrow n \leq 9, \dots \rightarrow$$

ج. 9

$$\Delta p - 9 = (4V)$$

$$pn + p_0 = \Delta p$$

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