

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

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

$$t_n = \frac{n+1}{n+5} \rightarrow t_1 = \frac{2}{6} \quad t_2 = \frac{2(2)+1}{2+5} = \frac{5}{7} \quad t_3 = \frac{3}{6} = 1 \quad t_4 = \frac{5}{9}$$

$$t_5 = \frac{3(5)+1}{5+5} = \frac{16}{10} = \frac{8}{5}$$

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

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

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

$$t_n = n^2 - 15n + 50 \rightarrow (n-10)(n-5) = 0 \quad \begin{array}{c} 5 \quad 10 \\ + \quad - \quad + \end{array}$$

$$5, 9, 11, 14, 17 \rightarrow 50$$

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

$$t_n = n^2 - 12n + 27 \rightarrow (n-9)(n-3) = 0 \quad \begin{array}{c} 3 \quad 9 \\ + \quad - \quad + \end{array} \rightarrow 3, 6, 9, 12, 15, 18, 21, 24, 27 \quad (4)$$

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

$$t_7 = ? \rightarrow 7 - 3 = 4$$

$$t_n = n^2 - 9n + 14 \rightarrow \frac{-b}{2a} \rightarrow \frac{9}{2} = 4.5 \quad n = 3 \rightarrow t_3 = 9 - 11 + 14 = 12$$

$$t_n = n^2 + 5n + 1 \rightarrow \frac{-b}{2a} = \frac{-5}{2} = -2.5 \quad 1 + 1 + 1 = 3 \quad (5)$$

$$t_n = -1, -4, -9, -16, -25, \dots \quad a = \frac{1}{4} \times 4 = 1$$

$$\begin{array}{ccccccc} -1 & -4 & -9 & -16 & -25 & \dots \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \\ -1 & -3 & -5 & -7 & -9 & \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \\ 1 & 2 & 3 & 4 & 5 & \end{array} \quad C=1 \quad b=-9$$

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

$$t_n = n^2 - 9n + 1$$

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

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$$\begin{array}{cccc} +1 & +a & +a & +13 \\ & \swarrow & \searrow & \\ & +\varepsilon & +\varepsilon & \end{array}$$

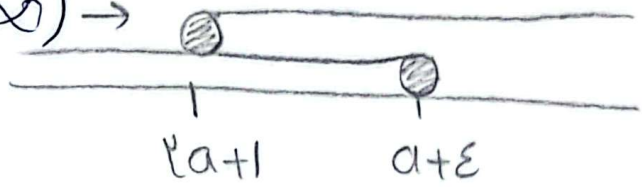
$$pn^2 + bn + (-V)$$

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

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

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



$$pa+1 \leq a+\varepsilon \rightarrow a \leq \frac{1}{p}$$

$$x \leq 100 \rightarrow \frac{1}{n} \leq 100 \quad n \leq \frac{1}{100}, \dots \rightarrow \underline{\frac{1}{100}}$$

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$$\omega n \leq 100 \rightarrow n \leq \frac{1}{\omega}$$

ب. $\frac{1}{\omega}$

$$|\omega n| \leq 100 \rightarrow n \leq \frac{1}{\omega}, \dots \rightarrow$$

ج. $\frac{1}{\omega}$

$$\Delta x - y = \frac{1}{V} \quad \frac{1}{V} + \frac{1}{V} = \frac{2}{V} \quad \text{ج. } \frac{2}{V}$$