

$$Z_n = n^r + \frac{n(n-1)}{r} \quad \checkmark$$

$$t_{10} = 1 + \frac{10}{4} = 1 + 2.5 = 3.5$$

$$\frac{1 \cdot (1-1)}{r} \rightarrow 100 + r\Delta = 1r\Delta$$

1, 1, 0

$t_{n(n)} = n^2$ تعداد مثلث ها $\rightarrow a_n = \frac{n(n-1)}{2} \rightarrow \frac{n(n-1)}{2} = 55$

$$I_n(\text{سفي}) = \frac{n(n+1)}{2}$$

$$n^r_n = 11.$$

$$\Rightarrow \zeta_n(0) = n^r - \frac{n(n+1)}{2} \Rightarrow 0^r - \frac{0(0+1)}{2} = 0 - 0 = 0$$

$$\boxed{n=11} \leftarrow (n-11)(n+1) = 0$$

①

4

مرد زلف $\rightarrow t_n = \varepsilon n + 1 \rightarrow t_{11} = \varepsilon \varepsilon + 1 = \boxed{\varepsilon \varepsilon}$

مرد سفید $\rightarrow t_n = \varepsilon(n-1) \rightarrow t_{11} = \varepsilon \varepsilon - \varepsilon = \boxed{\varepsilon \cdot}$

$\Rightarrow \varepsilon \varepsilon + \varepsilon \cdot = 1 \varepsilon$

③

بزرگترین $\rightarrow a_{t_p} = \boxed{\frac{1}{2}}$

هذه هي جلوتهم في الجفند نزلت في السند

$$\frac{1}{r} - (-1) = \underline{\underline{\frac{r}{r}}} \quad \checkmark$$

④

$$b_n = (-r)^n - v_n$$

$$b_r = (-r)' - V(r) = -rV - rI = \boxed{-E\hbar}$$

$$a_n = -\delta n + \psi\psi$$

$$a_k \Rightarrow -\delta n + 4\psi = -\epsilon \lambda \Rightarrow -\delta n = -V_0 \Rightarrow n = 1\epsilon$$

K=12

$$t_1 = t_v + r_d$$

$$t_1 - t_v = t_v + r_d - t_v = r_d = 12$$

$$\boxed{d = \varepsilon}$$

$$t_4 = a + 3d$$

$$\Rightarrow t_4 - t_1 = a + 3d - a = 3d = 36 \Rightarrow d = 12 \quad \checkmark$$

(12)

$$t_5 = t_4 + r_d \Rightarrow t_4 + r_d - t_4 = r_d = 11 \Rightarrow d = \varepsilon$$

$$\left. \begin{array}{l} t_1 = 3 \rightarrow a = 3 \\ t_4 = 11 \rightarrow d = 11 \end{array} \right\} \Rightarrow b_n = 11n - 8 \quad \checkmark$$

(11)

$$t_n = \frac{\varepsilon n - 2}{2n + 3}$$

$$\frac{\varepsilon n - 2}{2n + 3} < \frac{3}{4}$$

$$11n - 8 < 4n + 9$$

$$7n < 17 \quad n < \frac{17}{7} \approx 2.4 \Rightarrow n = 2 \quad \checkmark$$

(2)

$$\begin{array}{cccc} 4 & 9 & 9 & 4 \\ \hline 3 & 0 & -3 & -4 \\ \hline -3 & -3 & -3 & \end{array}$$

$$\Rightarrow ka = -\frac{3}{4}$$

$$-\frac{3}{4} + B = 4$$

$$\boxed{B = \frac{19}{4}}$$

$$3(-\frac{3}{4}) + 0(\frac{19}{4}) = \frac{30 - 9}{4} = \frac{21}{4} = \frac{3 \times 7}{4} \quad \checkmark$$

(7)

$$\begin{array}{ccc} -4 & -4 & -\varepsilon \\ \hline 0 & 4 & \varepsilon \\ \hline 4 & 4 & \end{array}$$

$$ka = 4 \Rightarrow a = 1$$

$$\boxed{C = -4}$$

$$B - 4 = -4$$

$$\boxed{B = 0}$$

$$\Rightarrow t_n = n^2 - 4$$

$$t_5 = t_4 + r_d \Rightarrow t_4 + r_d - t_4 = r_d = 1 \Rightarrow d = 0$$

$$a + d = 1 \Rightarrow a = 1 \Rightarrow t_n = 0n + 1 \quad \checkmark$$

$$0n + 1 = n^2 - 4 \Rightarrow n^2 - 0n - 5$$

$$0n + 1 = n^2 - 4$$

$$n^2 - 4n - 5 = 0 \Rightarrow (n-5)(n+1) = 0$$

$$(n-5)(n+1) = 0$$

$$n = 5$$

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

$$t_n = an^2 + bn + c \rightarrow \begin{cases} t_1 = 1 + b + c = -4 \\ t_4 = 16 + 4b + c = -5 \end{cases} \rightarrow$$

$$\begin{cases} b = -1 \\ c = -4 \end{cases}$$