

$$\begin{array}{cccc} 1 & 2 & 12 & 22 \\ 1 & 4+1 & 9+3 & 16+6 \\ (1) & (2) & (3) & (4) \end{array}$$

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

$$100 + \frac{10(9)}{2} = 145$$

$$\begin{array}{ccc} 0 & 1 & 2 \\ (1) & (2) & (3) \end{array}$$

$$\frac{n(n-1)}{2}$$

$$\frac{n(n-1)}{2} = 25$$

$$n(n-1) = 50$$

$$n = 11$$

$$\begin{array}{ccc} 2 & 12 & 21 \\ (1) & (2) & (3) \end{array}$$

$$d = 1$$

$$t_{11} = a_1 + 10d$$

$$t_{11} = 2 + 10 = 12$$

تعداد کلمات در رشته

$$\begin{array}{ccc} 2 & 9 & 12 \\ 4 & 4 & 4 \end{array}$$

$$d = 7$$

$$t_{11} = a_1 + 10d$$

$$2 + 70 = 72$$

$$t_{11} = 72$$

تعداد کلمات در رشته
باز در هم

$$n=1 \rightarrow a_1 = \frac{1}{1}$$

$$n=2 \rightarrow a_2 = \frac{1}{2}$$

$$-1 + \frac{1}{2} = -\frac{1}{2} = -0.5$$

$$\begin{array}{c} -1 \\ + \frac{1}{2} \end{array}$$

$$b_k = (-2)^k - 21 = -27 - 21 = -48$$

$$a_k = b_k \rightarrow -48 = -2k + 22$$

$$-70 = -2k$$

$$k = 35$$

$$t_{10} - t_v = 12$$

$$t_v \quad t_1 \quad t_9 \quad t_{10}$$

$$t_1 \quad t_v \quad t_e \quad t_e \quad t_9 \quad t_9$$

$$f \times d = 10$$

$$a_1 \quad a_v \quad a_e \quad a_e \quad a_9 \quad a_9$$

$$b_n \rightarrow \begin{matrix} \sqrt{n} & \sqrt{n} & \sqrt{n} \\ (1) & (2) & (3) \end{matrix}$$

$$r = a + b$$

$$11 = r + b$$

$$a = 1 \quad b = -1$$

$$b_n = 1n - 1$$

$$\frac{1}{2} < \frac{1}{3} < \frac{1}{4} < \frac{1}{5}$$

$$\frac{r(r-1)}{r+1} < \frac{r}{r}$$

$$r-1 < r+1$$

$$n < 2$$

$$1 < r < r+1 < 2$$

$$1 < 2$$

$$t_n = An^2 + Bn + C$$

$$C = 0$$

$$0 < 1 < 4 < 9 < 16 < 25$$

$$A = -1/2$$

$$t_1 = 1/2 + B = 1$$

$$B = 1/2$$

$$r(-1/2) + 1(1/2) = -r/2 + r/2 = r$$

$$t_n = -1/2n^2 + 1/2n + 0$$

$$C = 0$$

$$a = 1$$

$$t_n = an^2 + bn + c$$

$$t_1 = 1 + b - 1/2 = -1/2$$

$$b = -1$$

$$\begin{aligned} r_1 &= ra + b \\ r_1 &= ra + b \\ 10 &= ra \\ a &= a \\ b &= r_1 \end{aligned}$$

$$\begin{aligned} an + r_1 &= n^2 - n - 1 \\ r_1 &= n^2 - 2n \\ r_1 &= n(n-2) \\ n &= 3 \end{aligned}$$