

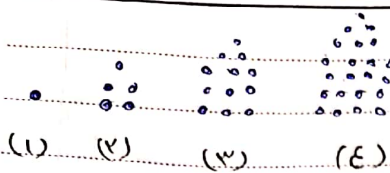
باسم تعالیٰ سہ ماہی ۱۱

گروہ دہم دختران A

18, 5

نام و نام خانوادگی: زهرا (هفتابی)

Subject: Year: Month: Date: ()

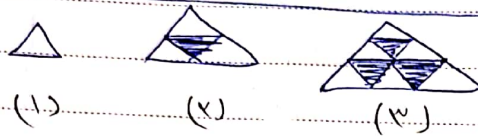


(1) 1 (2) 4 (3) 9 (4) 16

1+0 4+1 9+3 16+4 $\rightarrow t_n = n^2 + \frac{n(n-1)}{2}$

$t_{10} = n^2 + \frac{n(n-1)}{2} = 100 + \frac{100(99)}{2}$

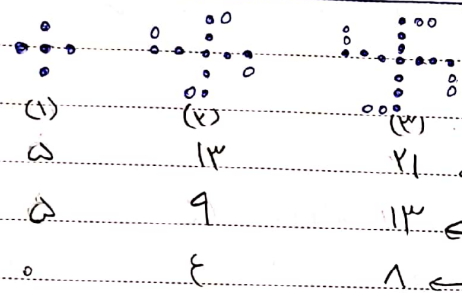
10x9
50x9
1/5



(1) 1 (2) 3 (3) 6
0 1 2
1 3 6
1 3 6

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

$t_n - n = 55$
 $\frac{n(n+1)}{2} - n = 55$



(1) 5 (2) 13 (3) 21
0 1 2
5 13 21
0 1 2

$t_{11} = 5(11-1) = 50$
 $a_n = 5(11) + 1 = 56$
 $d = 50 + 55 = 105$
 $d = 5n + 1$
 $1 \leftarrow \text{میانوسه} = t_n = 5(n-1)$

$a_n = \frac{(-1)^n}{n}$

کوچکتر $\rightarrow -1$
بزرگتر $\rightarrow \frac{1}{2}$

-1, $\frac{1}{2}, -\frac{1}{3}, \frac{1}{4}, \dots$
 $\uparrow \uparrow \uparrow \uparrow$
 $n=1 \quad n=2 \quad n=3 \quad n=4$

اختلاف $\rightarrow \frac{1}{2} - (-1) = \frac{1}{2} + 1 = \frac{3}{2}$

$b_n = (-3)^n - 5n \rightarrow b_3 = (-3)^3 - 5(3) = -27 - 15 = -42$

$a_n = -a_{n+2}$

$-a_n + 22 = -51$

$\frac{-a_n}{-5} = \frac{-50}{-5} \rightarrow n = k = 10$

Subject:

Year. Month. Date. ()

$$t_{10} - t_0 = 12 \rightarrow 3d = 12 \rightarrow d = 4$$

$$t_4 - t_1 = 9$$

$$d = \frac{t_4 - t_1}{4 - 1} \rightarrow \xi = \frac{t_4 - t_1}{\omega} \rightarrow t_4 - t_1 = 12$$

$$\begin{cases} a_1 = 1 \\ a_2 = 10 \end{cases} \quad \begin{aligned} a_1 &= b_1 \rightarrow a_1 = \xi(1) - 1 = 3 = b_1 \\ a_2 &= b_2 \rightarrow a_2 = \xi(2) - 1 = 11 = b_2 \end{aligned}$$

$$3d = 12 \rightarrow d = 4$$

$$a_n = \xi n - 1$$

$$3, 11, \dots$$

$$\xrightarrow{+8}$$

$$b_n = 4n - 3$$

$$\frac{1}{a}, \frac{1}{b}, \frac{1}{c}, \frac{1}{d}, \dots \rightarrow \frac{1}{t_n} = \frac{\xi n - 1}{4n + 3}$$

$$\frac{\xi n - 1}{4n + 3} < \frac{3}{4} \rightarrow 3(4n + 3) > 4(\xi n - 1) \rightarrow 12n + 9 > 4\xi n - 4$$

$$\frac{13}{4} > \xi \rightarrow \xi < \frac{13}{4}$$

$$4, 9, 14, 19, \dots$$

$$t_n = An^2 + Bn$$

$$3A + 2B = 9$$

$$t_1 = A + B = 4$$

$$3(-\frac{3}{4}) + 2(\frac{15}{4}) = -\frac{9}{4} + B = 4$$

جواب آخر

$$B = \frac{15}{4}$$

$$A = -\frac{3}{4}$$

$$t_n = -9, -8, -7, \dots \rightarrow t_n = an^2 + bn + c \rightarrow t_n = n^2 - n - 9$$

$$\begin{cases} a_1 = 31 \\ a_2 = 81 \end{cases}$$

$$+2 \quad +8$$

$$+2 \rightarrow 2a = 2 \rightarrow a = 1$$

$$t_1 = 1 + b + c = -9$$

$$t_2 = 4 - 2b - c = 8$$

$$3d = 12 \rightarrow d = 4 \quad t_n = -9, -8, -7, -6, -5, -4, -3, -2, -1, 0, 1, 2, 3, 4$$

$$a_n = \omega n + 4$$

$$a_1 = 4 \quad t_1 = 4$$

$$b = -1 \quad c = -9$$

PAPCO

$$n^2 - n - 9 = \omega n - 4$$

$$n^2 - 4n - 5 = 0 \rightarrow n = 5 \quad n = -1$$