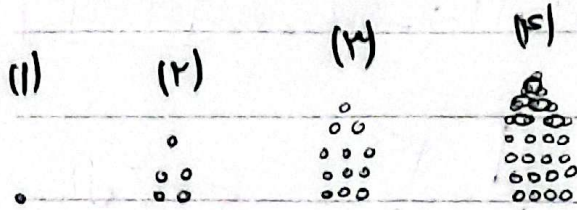


دہم ترمیم A تکلیف ۱۱

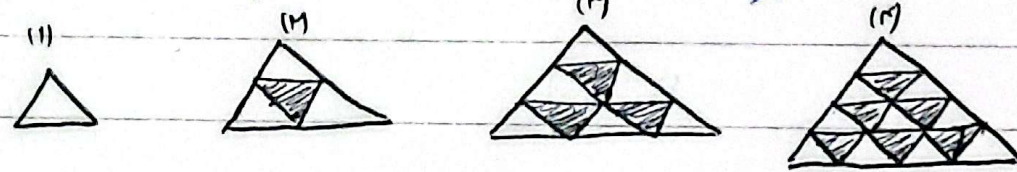
نام خدا

امیر علی میرزاش



سوال ۱

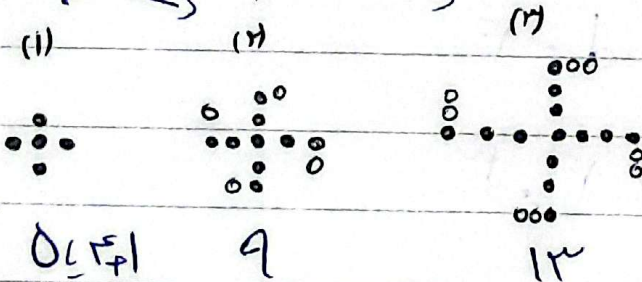
$$t_n = n^2 + \frac{(n-1) \times n}{2} \rightarrow t_{10} = 100 + \frac{9 \times 10}{2} = 145$$



سوال ۲

$$t_n = \frac{(n-1) \times n}{2} \rightarrow 55 = \frac{n-1 \times n}{2} \rightarrow 110 = n^2 - n \rightarrow n(n-1) = 110$$

$$n = 11$$



سوال ۳

$$t_n = 4n + 1 \rightarrow t_{11} = 44 + 1 = 45$$

$$a_n = 11n - 3 \rightarrow a_{11} = 111 - 3 = 108$$

سوال ۴

$$\left. \begin{aligned} \frac{1}{x} & \rightarrow \text{بایں اکثریہ عدد زوج بالآخر} = \text{بزرگتر} \\ \frac{1}{x} - (-1) & = 1/5 \end{aligned} \right\}$$

$$\frac{1}{x} = \frac{(-1)^1}{1} = -1$$

Subject.

$$b_n = (-r)^n - v_n \rightarrow b_n = (-r)^n - r1 = -r1 \quad \leftarrow \text{قال 5}$$

$$a_n = -0n + r2 \rightarrow a_n = -r1 = -0n + r2 \rightarrow -0n = -r0 \quad \boxed{K=1r}$$

$$t_{10} - t_v = 1r \rightarrow t_v - t_v + r d = 1r \rightarrow d = r \quad \leftarrow \text{قال 6}$$

$$t_0 - t_1 = r \rightarrow (t_v - d) - (t_v - r d) = r \rightarrow d - r d = r \rightarrow d = r$$

$$\rightarrow \Delta d = r \rightarrow \boxed{r = \Delta x r = r_0}$$

$$\left. \begin{array}{l} a_r = v, \quad a_r = 10 \\ a_1 = b_1, \quad a_r = b_r \end{array} \right\} \begin{array}{l} a_r + r d - a_r = 10 - v \rightarrow r d = 10 - v = 1 \\ \rightarrow d = r \end{array} \quad \leftarrow \text{قال 7}$$

$$a_1 = a_r - d = b_1 \rightarrow b_1 = v - r = r$$

$$a_r - d = a_r = b_r \rightarrow b_r = 10 - r = 11$$

$$\boxed{b_n \Rightarrow r_0, 11, 19, 27, \dots, b_n \rightarrow b_n = 1n - \Delta}$$

Subject.

← سوال 1

$$t_n = \frac{r}{d} + \frac{q}{v} + \frac{1}{a} + \frac{1}{11} + \dots$$

$$t_n = \frac{r_n - r}{r_n + r} \rightarrow \frac{r_n - r}{r_n + r} < \frac{r}{r} \rightarrow$$

$$11n - r < r_n + r \rightarrow r_n < 11r \rightarrow n < v, 0$$

$$\rightarrow \boxed{r_n < v}$$

$$t_n = \frac{r}{d} + \frac{q}{v} + \frac{1}{a} + \frac{1}{11} + \dots \rightarrow r_n - r \rightarrow a_n - 1, 0 = A \leftarrow \text{سوال 2}$$

$$t_n = A_n + B_n \rightarrow t_1 = 1, 0 + B = q \rightarrow B = v, 0$$

$$rA + \Delta B = ? \rightarrow \underbrace{(r \times 1, 0)}_{-r, 0} + \underbrace{(\Delta \times v, \Delta)}_{r, v, 0} = \boxed{r, v}$$

$$t_n = \frac{r}{d} + \frac{q}{v} + \frac{1}{a} + \frac{1}{11} + \dots \rightarrow r_n = r \rightarrow a_n = 1, C = -q \leftarrow \text{سوال 3}$$

$$a_r = r, 1, a_r = r, 1 \rightarrow t_n = 1 + b - q \rightarrow b = -1 \rightarrow t_n = 11r - n - q$$

$$a_r + r, d - a_r = 1, 0 \rightarrow r, d = 1, 0 \rightarrow d = 0 \rightarrow a_r = r, q \rightarrow a_n = 0n + r, 1$$

$$\rightarrow t_n = a_n \rightarrow 11r - n - q = 0n + r, 1 \rightarrow 11r - n - q = r, 1 \rightarrow n(11q), r, v$$

$$\boxed{n = 9}$$

←