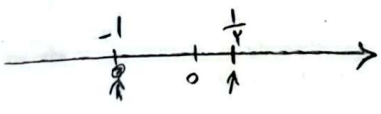


1915

نام و نام خانوادگی شماره کلاس پاسخنامه تشریحی	
1, 5, 11, 17, ... $1+0, 4+1, 9+4$ $n^2 + \frac{n(n-1)}{2}$ $t_{10} = 100 + \frac{10 \times 9}{2} = 145$	1
0, 1, 4, ... $t_n = \frac{n(n-1)}{2}$ $t_n = \frac{n(n-1)}{2} = 55 \Rightarrow n(n-1) = 110$ $11 \times 10 \rightarrow n = 11$	2
0, 9, 18 $t_n = t_{n+1}$ $t_{11} = 4 \times 11 + 1 = 45$ $t_n = 4n+1 + 4(n-1) = 8n-3$ $t_{11} = 8 \times 11 - 3 = 85$ $45 + 85 = 130$ $11 \times 12 = 132$	3
$a_n = \frac{(-1)^n}{n}$ $\frac{1}{2} - (-1) = \frac{3}{2}$ 	4
$(-3)^k - 21 = -5k + 22$ $-25 - 21 - 22 = -5k$ $-68 = -5k$ $k = 14$	5

$t_{10} - t_0 = 1r$ $\frac{1r}{r} = r = d$ $t_4 - t_1 = ? \cdot n$ $\frac{n}{d} = r \rightarrow n = \underline{r_0}$ $t_1 + \omega d - t_1 = \omega d = \omega \times r = \underline{r_0}$	6
$a_r = v \quad 10 - v = \Lambda \rightarrow \frac{\Lambda}{r} = r = d$ $a_f = 1\omega$ $a_n = rn - 1 \quad \rightsquigarrow a_1 = \frac{r}{b_1}, a_r = \frac{11}{b_r}$ $b_n = r, 11, 19, \dots$ $\boxed{b_n = \Lambda n - \omega}$	v
$t_n = \frac{rn - r}{rn + r}$ $\frac{rn - r}{rn + r} < \frac{r}{r} \rightarrow \Lambda n - r < 4n + 4$ $rn < 1r$ $n < \frac{1r}{r} = 4, \omega \rightarrow n \leq 4 \rightarrow \boxed{1, 2, 3, 4}$	A
$t_n = -1,0 n^r + v_1 \omega n$ $t_n = A n^r + B n$ $t_1 = A + B \pm 6 \quad \times r = rA + rB = 1r$ $t_r = rA + rB = 9$ $\rightarrow 9 - 1r = -r = rA$ $A = -1,0 \rightarrow B = v_1 \omega$ $rA + \omega B = -r,0 + r v_1 \omega = \underline{1r}$	9
$\begin{matrix} -4, & -r, & 0 \\ \underbrace{\quad} & \underbrace{\quad} & \\ r & r & \\ \underbrace{\quad} & & \\ r = r\omega \rightarrow a = 1 \end{matrix}$ $t_n = n^r - n \quad (-9)$ $a_r = r! \quad r! - r! = 10 \rightarrow \frac{10}{r} = \omega = d$ $a_f = r! \quad a_n = \omega n + r!$ $t_n = a_n$ $n^r - n - 4 = \omega n + r!$ $n^r - 4n - r! = 0$ $(n - 4)(n + r) = 0$ $\downarrow$ $n = 1 \rightsquigarrow \text{X} \rightarrow \boxed{44}$	1.