

نام و نام خانوادگی بهینا مبینا پاسخنامه تشریحی تکلیف شماره ۱۷ کلاس هم سپر A

آخرین عدد دست $\rightarrow 1, 4, 9, \dots, n^2$

$9^2 = 81 \rightarrow$ آخرین عدد دست دوم

$$x = \frac{81 + 95}{2} = \boxed{73}$$

$8^2 + 1 = 65 \rightarrow$ اولین عدد دست دوم

دسته حسابی

$\downarrow$
آخرین عدد دست هشتم

$\Rightarrow \{1 \dots 1\} \text{ (1) }, \{4 \dots 12\} \text{ (2) }, \{13 \dots 36\} \text{ (3) }, \{4 \dots 12\} \text{ (4) }, \{121 \dots 36121\} \text{ (5)}$

$$\frac{a_1 + a_2 + \dots + a_n}{n} = \frac{a_1 + a_n}{2} = \frac{121 + 36121}{2} = \boxed{18121}$$

$$a_0 + a_1 + \dots + a_q = 1 + r + (1+a)r + r + (1+a)r + r + \dots + (1+a)r + 1$$

$$= rQ + ra = 1q \Rightarrow a = -r$$

$$\underbrace{a_r + a_{r+1} + \dots + a_{r+q}}_{a + [x]} = r_x(a+1) + 1(a+r) = 1 \cdot a + 1$$

$$a + [x] = 1 + a \quad \left\{ \begin{array}{l} a + [x] = a + r \\ \end{array} \right.$$

$$= -r + 1 = -r \quad \checkmark$$

$$d_n = an^r + bn + c$$

$$\Rightarrow d_a = -\frac{r\omega}{a} + ab + c = 1r$$

$$d_v = -\frac{r\omega}{a} + vb + c = 1v, r$$

$$\Rightarrow b = r \quad c = -1$$

$$+a = \frac{1}{v.} (-1r) = -\frac{1}{a}$$

$$dn = -\frac{n}{\omega} + rn - 1$$

$$\left[\frac{d_{1a}}{d_1} = \frac{1r}{r, 1} = \omega \right]$$

$$\left. \begin{array}{l} \text{دنيا} \rightarrow a \\ \text{الله} \rightarrow b \end{array} \right\} \begin{array}{l} a_r = b_r \\ a_n = b_v \end{array} \Rightarrow a_n - a_r = b_v - b_r \Rightarrow r d = \omega c$$

قد رشت با b

$$d = \frac{\omega}{r} c$$

$$b_{10} = 0 = 1 \cdot c + b_0 \Rightarrow b_0 = -1 \cdot c$$

$$\frac{b_{10}}{d} = \frac{-1 \cdot c}{\frac{\omega}{r} c} = \frac{-1}{\frac{\omega}{r}} = -\frac{r}{\omega}$$

برابر r

$$q(a+d)^r = a(a+rd)a + r(a+rd)a =, \quad qa^r + qd^r + 1rad = a^r + 1 \cdot ad + r a^r + r ad$$

$$\Rightarrow \cancel{qa^r} + aad + \cancel{qd^r} = 0 \quad \left\{ \begin{array}{l} \left(\frac{a}{d} \right)^r = \frac{a+rd}{d} = r + \left(\frac{a}{d} \right) \end{array} \right.$$

$$\frac{ra^r}{d^r} + \frac{aad}{d^r} - \frac{qd^r}{d^r} = \frac{0}{d^r} \quad (d^r \neq 0) \Rightarrow r \left(\frac{a}{d} \right)^r + \left(\frac{a}{d} \right) - q$$

$$\hookrightarrow \frac{a}{d} = \begin{cases} -r \\ \frac{r}{r} \end{cases} \Rightarrow r + \frac{a}{d} = \begin{cases} 1 \checkmark \\ r, a \checkmark \end{cases}$$

$$r b = a + c = \left(b - \frac{a+c}{r} \right)$$

$$\cancel{\frac{a}{r}} = \cancel{\frac{bc}{r}}$$

$$r a = \left(\frac{a+c}{r} \right) c = \frac{r a^2 - a c - c^2}{r} = 0$$

$$\{ q = \frac{a}{r} = \frac{a}{c} \}$$

$$\left(\frac{r a^2}{c^2} - \frac{a c}{c^2} - \frac{c^2}{c^2} = \frac{0}{c^2} \right) \Rightarrow r \left(\frac{a}{c} \right)^2 - \left(\frac{a}{c} \right) - 1 = 0$$

$$\frac{a}{c} = \begin{cases} 1 \\ -\frac{1}{r} \end{cases}$$

$$r q = \frac{a}{c} = \begin{cases} r \checkmark \\ -\frac{1}{r} \checkmark \end{cases}$$

$$ra = rb + c \Rightarrow c = ra - rb \quad \left\{ \begin{array}{l} b^r = a(ra - rb) = ra^r - rab \\ b^r = ac \end{array} \right.$$

$$\Rightarrow ra^r - rab - b^r = 0 \xrightarrow{b^r \neq 0} \frac{ra^r}{b^r} - \frac{rab}{b^r} - \frac{b^r}{b^r} = r\left(\frac{a}{b}\right)^r - r\left(\frac{a}{b}\right) - 1$$

$$\Rightarrow \frac{a}{b} = \begin{cases} 1 & \text{XÜÜE} \\ -\frac{1}{r} \end{cases} \quad \frac{aq}{aq} = q^r = \left(\frac{a}{b}\right)^r = \begin{cases} 1 & \text{X} \\ -\frac{1}{r^r} & \checkmark \end{cases}$$

$$\frac{aq^a}{(aq)^r} + \frac{aq}{a^r} = \frac{q^r}{a^r} + \frac{q}{a} = r \Rightarrow \left(\frac{q}{a}\right)^r + \frac{q}{a} - r = 0$$

$$\left(\frac{q}{a}\right) = \begin{cases} 1 \\ -r \end{cases} \quad \frac{a^r}{a_r} = \frac{a^r}{aq} = \left(\frac{a}{q}\right) = \begin{cases} 1 & \checkmark \\ -\frac{1}{r} & \checkmark \end{cases}$$

$$\sqrt{a_r} = a_r \Rightarrow \sqrt{aq^r} = aq^r \Rightarrow aq^r = aq^r \xrightarrow{qa \neq 0} 1 = aq$$

$$\frac{a_a}{aq} = \frac{aq^r}{aq} = q^r = r \vee \Rightarrow \boxed{q = r} \rightarrow aq = 1 \Rightarrow a = \frac{1}{r}$$

$$\frac{1}{r} - a = \frac{1}{r} - \frac{1}{r} = \frac{1}{r}$$