

نام و نام خانوادگی: ... پاسخنامه تشریحی تکلیف شماره ۱۱۱... کلاس ۵۲...	
$a_n = n^2$ $a_1 = 45$ $\{40, 44, \dots, 11\}$ $a_9 = 11$ $\frac{11+45}{2} = \frac{144}{2} = \sqrt{72}$	(۲) ۱
$\{1, 2, 3\}, \{4, \dots, 12\}, \{13, \dots, 29\}, \{30, \dots, 120\}, \{121, \dots, 243\}$ $\frac{121+243}{2} = 182$	(۲) ۲
$P = CK(x) \rightarrow 200$ $D = CK + 2 \rightarrow 202$ $\left[\frac{P}{2}\right] + 19 = 20$ $\left[\frac{D}{2}\right] + 19 = 20$ $20 + 20 + 11 + 21 + \dots + 25 + 25 + 20$ $2(40 + 21 + 22 + 23 + 24 + 25) + 20 = 200$	۵ ۳ جواب صفحه آخر...
$a_0 = 14$ $a \rightarrow \frac{1}{10} \times 10 = -\frac{1}{10}$ $a_{10} = 17/2$ $\frac{-\frac{1}{10} \times 10 \times 10 + 4 \times 10 - 1}{-\frac{1}{10} \times 1 + 4 \times 1 - 1} = \frac{14}{1/10} = 140$ $\left. \begin{aligned} -\frac{1}{10} \times 20 + 0b + c &= 14 \Rightarrow 0b + c = 14 \\ -\frac{1}{10} \times 49 + 10b + c &= 17/2 \Rightarrow 10b + c = 27 \end{aligned} \right\} \Rightarrow 2b = 1 \Rightarrow b = \frac{1}{2}$ $c = 14$	(۲) ۴
$a_5 = t_1$ $t_{10} = 0$ $a_n = t_n$ $t + 9d = 0 \Rightarrow t = -9d$ $a + 4d = t + 4d$ $a + 4d = t + 4d$ $\frac{t_{10}}{d} = \frac{0d}{d} = \frac{0}{d} = 0$	(۲) ۵

$$4(a+d)^r = 0(a+rd)a + 1^r(a+d)a \Rightarrow 4a^r + 4rd^r + 1^r ad = 0a^r + 1 \cdot ad + 4a^r \cdot cad$$

$$\frac{a^r + cad}{a} - \frac{4a^r}{a} = 0 \Rightarrow a = \frac{-d \pm \sqrt{d^r + 1^r ad^r}}{a} \quad \begin{cases} a = \frac{rd}{r} = \frac{c}{f} ad \\ a = \frac{-ad}{r} = -rd \end{cases}$$

$$\frac{a+cd}{d} \quad \begin{cases} \frac{\frac{c}{f}d+cd}{d} = \frac{f+cd}{f} \checkmark \\ \frac{-rd+cd}{d} = 1 \checkmark \end{cases}$$

$$rb = a + c \Rightarrow a = rb - c \quad d = rN$$

$$\frac{a^r}{f} = \frac{bc}{f} \Rightarrow a^r = bc \Rightarrow (rb - c)^r = bc \Rightarrow r^r b^r + c^r - r^r bc = bc \Rightarrow \frac{r^r b^r}{a} + \frac{c^r}{c} - \frac{r^r bc}{b} = bc = 0$$

$$\frac{0c \pm \sqrt{r^r d^r - 1^r c^r}}{1} \quad \begin{cases} \frac{0c + r^r c}{1} = c = bx \\ \frac{0c - r^r c}{1} = \frac{r^r c}{1} = \frac{c}{f} = b \Rightarrow \frac{a}{f} = b \end{cases} \quad b, \frac{a}{f}, \frac{c}{f} \Rightarrow \boxed{q = -1} \quad -1 \times r = -r \checkmark$$

$$b^r = ac \Rightarrow b^r = a(fa - cb) \Rightarrow b^r = fa^r - r^r ab \Rightarrow b^r - \frac{fa^r}{a} + \frac{c^r b}{b} = 0$$

$$fa = r^r b + c \Rightarrow c = fa - r^r b \quad \therefore \frac{-ra \pm \sqrt{9a^r + 1^r a^r}}{r} = b \Rightarrow b \quad \begin{cases} a = bX \\ -fa = b \end{cases}$$

$$\frac{aq^1}{aq^0} = q^r = (-f)^r = -rf \checkmark$$

$$\hookrightarrow q = -f \checkmark$$

$$\frac{a \times q^0}{a^r \times a^r} + \frac{a \times q}{a^r} = r \Rightarrow \frac{q^r}{a^r} + \frac{aq}{a^r} = r \Rightarrow q^r + aq = ra^r$$

$$q^r + aq - ra^r = 0 \Rightarrow \frac{-a \pm \sqrt{a^r + 1^r a^r}}{a} = q \Rightarrow \quad \begin{cases} \frac{ra}{r} = q \Rightarrow a = q \\ \frac{-a}{r} = q \Rightarrow -ra = q \end{cases}$$

$$\frac{a^r}{aq} = \frac{q}{q} = \quad \begin{cases} \frac{a}{a} = 1 \checkmark \\ \frac{a}{-ra} = -\frac{1}{r} \checkmark \end{cases}$$

$$a_0 = rV \quad | \quad a_r = \sqrt{a_f}$$

$$a \times q^t = rV$$

$$a \times q^r = \sqrt{a \times q^f} \Rightarrow a^r \times q^f = a \times q^f \Rightarrow a \times q = 1 \Rightarrow a_1 = \frac{1}{q}$$

$$\left. \begin{aligned} q^r &= rV \Rightarrow q = r^V \\ \frac{1}{r} - a_1 &= \frac{1}{q} \end{aligned} \right\} \Rightarrow a_1 = \frac{1}{r} \checkmark$$

ضابطه اول $\rightarrow a_0, a_3, a_4, a_9$

ضابطه دوم $\rightarrow a_1, a_4, a_7$

ضابطه سوم $\rightarrow a_2, a_5, a_8$

$$S_{10} = 1 + 4 + (1+a) + 2 + (1+a) + 4 + 0 + (2+a) + 8 = 19 \rightarrow a = -2$$

جمع جملات خواسته شده از ضابطه سوم به دست میاد :

$$a_n = \left[\frac{n}{K+2} \right] - 2 \xrightarrow{n=3K+2} \left[\frac{3K+2}{K+2} \right] - 2 = \overset{\text{میاد بیرون}}{\left(2 + \frac{K-2}{K+2} \right)} - 2 = \left[\frac{K-2}{K+2} \right]$$

این عبارت به ازای $K=0$ برابر ۱- و به ازای بقیه اعداد صحیح پس جواب خواسته شده ۲-.