

نام و نام خانوادگی: هجری شمسی: پاسخنامه تشریحی تکلیف شماره ۱۷... کلاس: فصل:
 صفحه ۵/۴

--- , { 1 } , { 2, 3, 4 } , { 5, 6, 7, 8, 9 } , { 10, 11, 12, 13, 14, 15, 16 } , ---

تعداد ۱, ۳, ۵, ۷, ... $\rightarrow ad^2 - 1 \rightarrow (2 \times 9) - 1 = 17$

$$\begin{matrix} a, b, c \\ \frac{a+c}{2} = b \end{matrix}$$

آخرین عدد دسته ۱ - ۲۴ پس اولین عدد دسته ۹۵, ۹ است و عدد آخر دسته ۱۱ است.

$$\{ 25, 26, \dots, 11 \} \rightarrow \frac{11+25}{2} = \frac{14}{2} = 7$$

{ 1, 2, 3 } , { 4, 5, 6, ..., 12 } , { 13, ..., 29 } , { 30, ..., 46 } , { 47, 48, ..., 63 }

میانگین دسته = $\frac{121+363}{2} = \frac{484}{2} = 242$

$$a_0 + a_1 + \dots + a_9 = 19$$

$$a_0 = 1 \rightarrow 2^0 / a_3 \rightarrow k = 1 \rightarrow 2^1 = 2 / a_4 \rightarrow k = 2 \rightarrow 2^2 = 4 / a_9 \rightarrow k = 3 \rightarrow 2^3 = 8$$

$$a_n = \begin{cases} 2^k : n = 3k \rightarrow n = 3, 6, 9, \dots \\ -2k + 4 : n = 3k + 1 \rightarrow n = 1, 4, 7, 10, \dots \\ \lfloor \frac{n}{3} \rfloor + a : n = 3k + 2 \rightarrow n = 2, 5, 8, 11, \dots \end{cases}$$

$$a_1 = 4 / a_4 = 2 / a_7 = 0 \quad 25 + 3a = \text{مجموع می آید}$$

$$a_2 = 1 + a / a_5 = 1 + a / a_8 = 2 + a$$

$$25 + 3a = 19 \rightarrow 3a = -6 \rightarrow a = -2$$

$$a_2 + a_5 + a_8 + \dots + a_{29} \rightarrow \text{جوابی ۵ عدد}$$

$$10a + \{ 1 + 1 + 2 + 2 + \dots + 2 \} = 11 + 10(-2) = -9$$

$$-2 = \text{جواب آخر}$$

$$a_5 = 14, a_7 = 17, 2 \quad ax^2 + bx + c$$

$$\begin{cases} 25a + 5b + c = 14 \\ 49a + 7b + c = 17, 2 \end{cases} \rightarrow 24a + 2b = 3, 2 \rightarrow 12a + b = 1, 4$$

$$a = \frac{1}{10}x - 14 \rightarrow a = 0, 2 \rightarrow b = 4$$

$$\begin{cases} a_{15} = -0, 2 \times 15^2 + 15 \times 4 + (-1) = 14 \\ a_1 = -0, 2 + 4 - 1 = 2, 1 \end{cases} \rightarrow \frac{a_{15}}{a_1} = 5$$

$$25 \times (0, 2) + 5 \times 4 + c = 14 \rightarrow c = -1$$

$$5 = \text{جواب آخر}$$

$$\begin{matrix} a + 3d & a + 7d \\ \downarrow & \downarrow \\ a_r + dr & a_r + 4dr \end{matrix}$$

$$a_2 + 9dr = 0 \rightarrow a_2 = -9dr$$

$$\begin{matrix} a + 3d = a_r + dr - 1dr \\ a + 7d = a_r + 4dr - 3dr \end{matrix} \rightarrow \begin{matrix} a + 3d = -1dr \\ a + 7d = -3dr \end{matrix}$$

$$\frac{a_2 + 14dr}{d} = \frac{5dr}{dr} = 5$$

$$4d = 5dr \rightarrow d = \frac{5}{4}dr$$

$$4ar = \Delta a r a + 3a r a$$

جواب آخر ← $1 \leq \epsilon, \delta \leq$

$$q(a+d)^r = a(\Delta x(a+rd) + 3x(a+d)) \rightarrow q(a^r + d^r + rad) = a(\underbrace{\Delta a + 1}_{1a + 1rd} + \underbrace{3a + 3d}_{3a + 3rd})$$

$$q a^r + 4d^r + 1rad = 1a^r + 1rad \rightarrow 2a^r + 4d^r - 4d^r = 0 \Rightarrow a^r + \frac{d}{r} a - 3d^r = 0$$

$$\rightarrow (a+rd)(a - \frac{r}{r}d) = 0$$

$$\frac{aq}{d} = \frac{a+rd}{d} = \frac{a}{d} + r = -r + r = 1 \quad \left| \quad \frac{a}{d} + r = \frac{r}{r} + r = \epsilon, \delta \right|$$

$$a, b, c \rightarrow a = b - d$$

$$\rightarrow c = b + d$$

$$b, \frac{b-d}{r}, \frac{b+d}{r}$$

$$\rightarrow \frac{(b-d)^r}{r} = \frac{b(b+d)}{r} \rightarrow b^r + d^r - 2bd = b^r + db$$

$$d^r = 3bd \rightarrow d = 3b \quad \begin{matrix} x-1 & x-1 \\ \nearrow & \searrow \end{matrix}$$

$$b, \frac{b-3b}{r}, \frac{b+3b}{r} \rightarrow b, -b, b$$

$$-1 \times r = -r$$

$$a, b, c \rightarrow$$

$$c, ra, rb$$

$$b = aq, c = aq^r$$

$$ra - c = rb - ra \rightarrow ra - aq^r = raq - ra$$

$$r - q^r = rq - r \rightarrow rq - r + q^r = 0$$

$$(q + \epsilon)(q - 1) = 0 \rightarrow \begin{cases} q = 1 \\ q = -\epsilon \end{cases}$$

$$\frac{\epsilon q}{\epsilon q} = \frac{aq^r}{aq^0} = q^r \left[\begin{matrix} -\epsilon \\ 1 \end{matrix} \right]$$

$$\frac{aq}{(ar)^r} + \frac{ar}{(ar)^r} = r$$

$$\frac{aq^0}{(aq^r)^r} + \frac{aq^r}{a^r} = r \rightarrow \frac{q^r}{a^r} + \frac{q}{a} = r \rightarrow \frac{q^r}{a^r} + \frac{q}{a} - r = 0 \quad \left[\begin{matrix} \frac{q}{a} = 1 \\ \frac{q}{a} = -r \end{matrix} \right]$$

$$\frac{a^r}{a^r} = \frac{ar}{aq} = \frac{a}{q} = \frac{-1}{r} \leq 1$$

$$aq^r = \sqrt{aq^r} \quad aq^r = rv \rightarrow (aq)q^r = rv$$

$$\rightarrow a^r q^r = aq^r \rightarrow aq = 1$$

$$(aq)q^r = rv \rightarrow q^r = rv \rightarrow q = r$$

$$\frac{1}{a^r} = 1 \rightarrow a \times r = 1 \rightarrow a = \frac{1}{r}$$

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