

۱۹/۵ آفرین

نام و نام خانوادگی طریقت کریم پاسخنامه تشریحی تکلیف شماره ۱۸ ... کلاس ... دهم خنجر

$$\frac{a_r}{q} \times a_r \times a_r q^2 = 4r \rightarrow a_r^3 = 4r \rightarrow a_r = r$$

$$11q = r + r q^r \rightarrow r q^r - 11q + r = 0 \rightarrow q = \frac{-b \pm \sqrt{\Delta}}{2a} \rightarrow \frac{11 \pm \sqrt{289 - 4r}}{2}$$

$\frac{r}{\lambda} = 4X$
 $\frac{r}{\lambda} = \frac{1}{4} \checkmark$

$$n^r + r, 2n, n^r - r \rightarrow (n^r - r)(n^r + r) = (2n)^r$$

$$n^r + r n^r - 1 = r n^r \rightarrow n^r - 2n^r - 1 = 0$$

$(n^r - 4)(n^r + 4)$
 $n^r = 4 \rightarrow n = \pm 2$
 $n^r = -4X$

$$q_v = q_1 \left(\frac{1 - q^v}{1 - q} \right) \rightarrow 1 \left(\frac{1 - \frac{15V}{15}}{1} \right) = \frac{15V}{1}$$

$$q_1 + a_1 q + a_1 q^r + a_1 q^r + a_1 q^r \rightarrow \frac{a_1}{r+1} (1 + q + q^r + q^r + q^r) = r+1 \times \frac{15}{11}$$

$r = 343 \checkmark$

حاصل: $\frac{44-1}{5} = \frac{43}{5} = 10.6 = q$

$$a_4: a_1 + 3d \rightarrow 1 + 3(10.6) = 31.8$$

معادله: $ab = c^2 \rightarrow 4r = a^r$

$a_r = +1 = B$
 $a_r = -1 = B$

$$A+B = 1 + 31.8 = 32.8 \quad / \quad A+B = -1 + 31.8 = 30.8$$

$$-r, -\frac{9d}{r}, \dots \rightarrow a_n = \frac{1}{r} n - \frac{9V}{r} \rightarrow a_{10} = \frac{101 - 9V}{r} = 1$$

$+\frac{1}{r}$

$$a_n = a_1 q^v \rightarrow 15n(q^v) = 1 \rightarrow q^v = \frac{1}{15n} \rightarrow q^v = \sqrt[15n]{\frac{1}{15n}} = \left(\frac{1}{r} \right)$$

$a_1 + 2d, a_1 + 4d, a_1 + 10d \rightarrow (a_1 + 10d)(a_1 + 2d) = (a_1 + 4d)^2$ $a_1^2 + 10a_1d + 14d^2 = a_1^2 + 8a_1d + 16d^2$ $-2od^2 = 2a_1d \rightarrow a_1 = -10d$ $2a_1d + 2od^2 = 0 \quad 2d(a_1 + 10d) = 0$ $d=0 \rightarrow \text{دنباله ی حسابی ثابت} \rightarrow q=1$ $q = \frac{1}{2} \rightarrow d = -\frac{a_1}{10}$	۶
$a_1 + d, a_1 + 3d, a_1 + 7d \rightarrow (a_1 + d)(a_1 + 7d) = (a_1 + 3d)^2$ $a_1^2 + 8a_1d + 14d^2 = a_1^2 + 6a_1d + 9d^2$ $2a_1d = -5d^2 \rightarrow a_1 = -\frac{5}{2}d$ $2d, 4d, 10d, \dots \quad a_n = a_1(q)^{n-1} \rightarrow a_{10} = \frac{1}{2} \left(\frac{1}{2}\right)^9 = \frac{1}{2^{10}}$	۷
$2a_1q, 2a_1q^2, a_1q^3 \rightarrow 2a_1q^2 - 2a_1q = a_1q^3 - 2a_1q^2$ $a_1q(2q - 2) = a_1q^2(q - 2) \rightarrow 2q - 2 = q^2 - 2q \rightarrow q^2 - 4q + 4 = 0$ $q = \frac{-b \pm \sqrt{\Delta}}{2a} \rightarrow \frac{4 \pm \sqrt{16 - 16}}{2} = \frac{4}{2} = 2$ $\Delta = b^2 - 4ac$	۸
$2, \frac{1}{2}, \dots \rightarrow a_n = \frac{1}{2}n + \frac{1}{2}$ $\frac{a}{2} + n, \frac{1}{2} + n, -1 + n \rightarrow (n-1)(2 + \frac{a}{2}) = (n + \frac{1}{2})^2$ $n^2 + \frac{1}{2}n - \frac{a}{2} = n^2 + \frac{1}{2}n + \frac{1}{4} \rightarrow \frac{n}{2} - \frac{a}{2} = \frac{1}{4} \rightarrow -\frac{a}{2} = \frac{1}{4} \rightarrow a = -\frac{1}{2}$	۹
$a_1, a_1r^3, a_1r^6 \quad d = ar^3 - a \rightarrow a(r^3 - 1) \quad a_1(1 + r^3 + r^6) = 7^3$ $ar^6 = a + 4d \rightarrow a + 4a(r^3 - 1) \quad r^6 = 1 + 4(r^3 - 1) \rightarrow r^6 - 4r^3 + 1 = 0$ $(r^3 - 1)(r^3 - 1) = 0 \rightarrow r^3 = 1 \rightarrow r = 1$ $d = a(r^3 - 1) \rightarrow a(0) = 0$ $a_1(1 + 1 + 1) = 7^3 \rightarrow a_1 = 7^3$ $d = 1 \times (1 - 1) = 0$	۱۰

در صورت سوال زیر بنده جواب دنباله مستقیم هست

$$a_2 - a_1 = d \rightarrow \frac{5}{k} - 2 = -\frac{1}{k} \rightarrow d = -\frac{1}{k}$$

$$a_n = 2 + (n-1) \cdot \left(-\frac{1}{k}\right) \rightarrow a_n = \frac{2-n}{k} \rightarrow a_n = -\frac{n}{k} + \frac{2}{k}$$

$$\sum a_k = \frac{5}{k} \quad (n=5)$$

$$\left\{ \begin{array}{l} a_1 = \frac{1}{k} \quad (n=1) \\ a_{13} = -1 \quad (n=13) \end{array} \right.$$

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$$\left\{ \begin{array}{l} \left(\frac{5}{k} + x\right)(-1+x) = \left(\frac{1}{k} + x\right)^2 \\ -\frac{5}{k} + \frac{x}{k} + x^2 = x^2 + \frac{1}{k}x + \frac{1}{k^2} \\ \frac{x}{k} = -\frac{21}{14} \rightarrow x = -\frac{21}{k} = \frac{5}{14} \end{array} \right.$$

$$\text{جواب دینا} \rightarrow (-4, -5, -4, 5) \rightarrow q = \frac{a_2}{a_1} = \frac{-5}{-4} = \frac{5}{4}$$