

1- $\frac{n}{q} \cdot n \cdot nq$ $t_1 + t_r + t_r = 21$ $t_1 \cdot t_r \cdot t_r = 4f$ $q \neq w$

$\frac{n}{q} \propto n \propto nq$ $n^3 = 4f$ $n = 4$

$\frac{f}{q} + f + fq = 21$ $\left[\frac{f}{q} + fq = 17 \right] \times q = f + 4q^2 = 17q$

$4q^2 - 17q + f = 0$

$q = \frac{1}{4}$ $q = f$

$q = \frac{1}{4}$ پس q غیر صحیح است پس

(2) ✓

2- $n^2 - 2$ و $2n$ و $n^2 + f$ $n^2 - 2$ و $2n$ و $n^2 + f$ $n^2 - 2$ و $2n$ و $n^2 + f$

$4n^2 = n^2 + 2n^2 - n$

$2n^2 = n^2 - n$

$n^2 - 2n^2 - 1 = 0$

$(n^2 + 2)(n^2 - 4) = 0$

$n^2 = 4$ $n = \pm 2$

$n = 2$ $n = -2$

$n \times \left(\frac{1 - q^4}{1 - q} \right) = \frac{121}{12n} \times 2 \times n = \frac{121}{n}$

$q = \frac{1}{4}$ $S_v =$

(2) ✓

3- $1 + q + q^2 + q^3 + q^4 = \frac{121}{n1}$

$q(1 + q + q^2 + q^3 + q^4) = \frac{121}{n1}$

$\frac{121}{n1} \times 243 = 343$ (2) ✓

1 000000 q^4 A 10 000000 $4f^{-4}$

$\pm n$ $q^4 = 4f$ $q = \pm 2$

$2210 + n = 4010$

$2210 - n = 2410$

$\frac{4f - 1}{a + 1} = \frac{4f}{4} = 1010$

(2) ✓

دعای سیر

یارسا محمدی

د- عمل ۱۰۱ ام حسابی - $\frac{-99}{4} - \frac{95}{4}$ با عمل کسب تقارر عددی $2n, a_2$

$$a_n = \frac{1}{4}n - \frac{99}{4}$$

$$a_{101} = 101 \times \frac{1}{4} - \frac{99}{4} = \boxed{1}$$

$$a_n = 12n \times q^V = 1$$

$$q^V = \frac{1}{12n} \Rightarrow q = \frac{1}{2}$$

(۲) ✓

t_r, t_v, t_q

-۶

$$\cancel{t_r} + t_q = 2t_v$$

$$a_1 + r d + a_1 + n d = 2a_1 + 12d$$

$$t_v^2 = t_r + t_q$$

$$\cancel{a_1^2} + 2a_1 d + 12a_1 d = \cancel{a_1^2} + 12d^2 + 12a_1 d$$

$$a_1 + 10d = 0$$

$$10d = -a_1$$

$$10d^2 = -2ad$$

$$d = -\frac{1}{10}a_1$$

$$10d = -a_1$$

$$\cancel{d}(10d) = -2a_1 \quad (d)$$

۳۰ د هم نابین قبل است چنان سوال نفقه میلات
تفاوتند

$$t_1 = \frac{1}{4}$$

$$t_{10} = ?$$

$$\cancel{t_r}, \cancel{t_f}, t_n$$

-۷

$$(t_r + r d)^2 = t_r^2 + 4d t_r$$

$$\cancel{t_r} \quad \cancel{t_r + r d} \quad t_r + 4d$$

$$\cancel{t_r^2} + 2r d t_r + r^2 d^2 = \cancel{t_r^2} + 4d t_r$$

$$t_{10} = \frac{1}{4} \times 2^9 = \boxed{128}$$

$$\cancel{r^2 d^2} = r d t_r$$

$$\cancel{d^2} \quad d = 2$$

$$r d = \cancel{t_r} \quad \frac{1}{4} (d) \rightarrow \boxed{2}$$

(۲) ✓

$$3 \times t_r = 2 \times t_r \quad , \quad t_r$$

-۸

$$3a_q, 2a_q^2, a_q^3$$

$$\cancel{3} \times \cancel{t_r} = 2 \times \cancel{t_r}$$

$$3a_q^2 = a_q^2 + 2a_q^2 = a_q^2 + 2a_q^2$$

$$2 \times 3a_q^2 = a_q^2 + 2a_q^2 =$$

$$-3a_q^2 + 2a_q^2 + a_q^3 = 2a_q^2$$

$$a_q(-3q + 2 + q^2) = 0$$

$$q = 1$$

$$q = 2$$

(۲) ✓

نهمین B

پارسا محمدی

مقدار اضافه شود گزینی شده

$$t_4, t_n, t_{13}$$

$$-9 \text{ --- } d = \frac{v}{f} \text{ و } 2 \text{ --- } q$$



$$d = -\frac{1}{f}$$

$$a_4 = \frac{5}{f}$$

$$a_n = \frac{1}{f}$$

$$a_{13} = -1$$

$$\frac{5}{f} + n, \frac{1}{f} + n, -1 + n \quad (2) \checkmark$$

$$\left(\frac{1}{f} + n\right)^2 = \left(n + \frac{5}{f}\right)(n - 1)$$

$$\frac{1}{f^2} + \frac{2n}{f} + \frac{1}{f}n = \cancel{n^2} + \frac{1}{f}n - \frac{5}{f}$$

$$n =$$

$$q = \frac{5}{f}$$

$$-f, -5, -\frac{25}{f}$$

$$n = -\frac{21}{f}$$

$$\frac{21}{f} = -\frac{1}{f}n$$

$$v_3 = t_1 + t_4 + t_v \quad -10$$

$$t_v = aq^3 \quad \left. \begin{array}{l} t_v = t_1 + d \\ t_v = t_1 + d \end{array} \right\} aq^3 = t_1 + d$$

$$a(q^3 - 1) = d$$

$$q^3 = n$$

$$q = 2 \quad \checkmark$$

$$\left\{ \begin{array}{l} q^3 = 1 \\ q^3 = 1 \end{array} \right.$$

$$q = 1 \quad \checkmark$$

$$a + aq^3 + aq^4 = v_3$$

$$t_{10} = t_1 + 9d = a + 9a(q^3 - 1)$$

$$a + 9aq - 9a$$

$$(1/5)$$

$$a + 9a + 4fa = v_3 \rightarrow a = 1$$

$$a(q^3 - 1) = n - 1 = v$$

به ازای $q=1 \leftarrow$ ریشه حسابی $d=0$ درستی آید و $d=0$ قابل قبول است.