

19, 5 آفرین

Date:

Subject:

تاریخ: ۱۵ شهریور

بسم الله الرحمن الرحيم

موضوع: ریاضیات

$$a_1 + a_2 + a_3 = 21$$

$$\rightarrow \frac{a}{q} + a + aq = 21$$

$$a_1 \times a_2 \times a_3 = 98 \rightarrow (a)^3 = 98 \rightarrow a = \sqrt[3]{98}$$

$$\frac{a}{q} \times a \times aq = a^3$$

$$\frac{21}{q} + 21 + 21q = 21 \rightarrow \frac{21}{q} + 21q = 1$$

q عددی غیر صفری است

$$\frac{21}{q} + 21q = 1 \rightarrow \frac{21}{q} + 21q = 1$$

$$b^2 = ac \rightarrow (2m)^2 = (m^2 + 1)(m^2 - 1)$$

$$4m^2 = m^4 - 1 + 2m^2 \rightarrow 2m^2 = m^4 - 1 \rightarrow m^4 - 2m^2 - 1 = 0$$

$$(m^2 - 1)(m^2 + 2) = 0 \Rightarrow m^2 = -2 \text{ یا } m^2 = 1$$

$$\frac{1}{m} \times \frac{1}{m}$$

$$m^2 = 1 \Rightarrow m = \pm 1$$

$$a_1 = 1, 2, 3, \dots \text{ مجموع } = a \left(\frac{1-q^{n+1}}{1-q} \right) = a \left(\frac{q^{n+1}-1}{q-1} \right)$$

$$\Rightarrow S_n = 1 \left(\frac{1 - \left(\frac{1}{2}\right)^{n+1}}{1 - \frac{1}{2}} \right) \Rightarrow 1 \times \frac{1 - \left(\frac{1}{2}\right)^{n+1}}{\frac{1}{2}} = \frac{1 - \left(\frac{1}{2}\right)^{n+1}}{\frac{1}{2}}$$

$$1 + q + q^2 + q^3 + q^4 = \frac{121}{11}, a = 121 \rightarrow a_1 + a_2 + a_3 + a_4 + a_5 = ?$$

$$121 + 121q + 121q^2 + 121q^3 + 121q^4 = 121 \times \frac{121}{11} = 121 \times 11 = 1331$$

$$d = \frac{48-1}{5+1} = 7.5 \rightarrow \text{مجموع } 48 = A$$

$$q = \frac{48}{1} = 48 \rightarrow q = 48 \rightarrow \text{مجموع } 1 = B$$

$$-12, -\frac{9}{2}, \dots \Rightarrow d = \frac{1}{2} \rightarrow a_{101} = a + 100d = -12 + 50 = 38$$

$$a_{101} = a + 100d = 1 \Rightarrow 1 = a + 100d \Rightarrow 121 \times q^v = 1 \Rightarrow q = \frac{1}{121}$$

$$\underline{a_r}, \underline{a_v}, \underline{a_q} \quad b^r = ac \quad (4)$$

$$\underline{a+rd}, \underline{a+qd}, \underline{a+nd} \Rightarrow (a+qd)^r = (a+rd)(a+nd)$$

$$a^r + r a d^{r-1} + \dots + r a d = a^r + 1 a d^{r-1} + \dots + 1 a d \Rightarrow r a d^{r-1} = r a d$$

$$\underline{a_q} = -rd, \underline{a_v} = -\epsilon d \Rightarrow -1 a d, -q a d, -n a d, \dots \quad a = -1 a d \quad d = -\frac{a}{1}$$

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$$\underline{+d} \quad \underline{+d} \quad \text{و } \underline{+d} \quad \text{من } \underline{+d} \quad \text{من } \underline{+d}$$

(v)

$$\underline{a_r}, \underline{a_\epsilon}, \underline{a_n} \quad d = \frac{1}{\epsilon}$$

$$\underline{a+rd}, \underline{a+qd}, \underline{a+vd} \Rightarrow (a+rd)^r = (a+vd)(a+d)$$

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$$a^r + r a d^{r-1} + \dots + r a d = a^r + 1 a d + v d^r \Rightarrow r a d^{r-1} = r a d \quad d = a$$

$$a_r = d = \frac{1}{\epsilon} \Rightarrow a_r = a + d = r d = \frac{1}{\epsilon}, a_r = 1, a_\epsilon = r$$

$$\frac{1}{\epsilon}, \frac{1}{r}, 1, r, \dots \Rightarrow q = r \quad a_{10} = a q^9 = \frac{1}{\epsilon} \times r^9 = r^9 = 12^9$$

(11)

$$15 \quad \underline{r a_r}, \underline{r a_v}, \underline{a_\epsilon}$$

$$\underline{r a_q} \quad \underline{r a_q}^r \quad \underline{a_q}^r \Rightarrow r b = a + c \Rightarrow r a q^r = a q^r + r a q$$

$$\epsilon a q^r = a q (r + q^r) \Rightarrow \epsilon q = r + q^r \Rightarrow q^r - \epsilon q + r = 0$$

$$(q-1)(q-r) = 0 \Rightarrow q = 1 \quad \text{من } \underline{+d} \quad \text{من } \underline{+d}$$

$$20 \quad \underline{a_\epsilon}, \underline{a_n}, \underline{a_{1\epsilon}} \quad d = \frac{-1}{\epsilon}$$

$$\underline{a+rd}, \underline{a+qd}, \underline{a+vd} \Rightarrow b^r = ac \Rightarrow (a - \frac{1}{\epsilon})^r = (a - \frac{r}{\epsilon})(a - \frac{1}{\epsilon})$$

$$\underline{a - \frac{1}{\epsilon}} \quad \underline{a - \frac{r}{\epsilon}} \quad \underline{a - \frac{1}{\epsilon}}$$

$$a^r + \frac{\epsilon q}{r} - \frac{1}{\epsilon} a = a^r + \frac{q}{\epsilon} - \frac{1}{\epsilon} a \Rightarrow \frac{1}{\epsilon} = \frac{1}{\epsilon} a$$

$$\text{من } \underline{a_1} = a_\epsilon \quad \text{من } \underline{a_1} = a_\epsilon \Rightarrow -\frac{1}{\epsilon} - \frac{r}{\epsilon} = -\epsilon$$

$$\text{من } \underline{a_r} = a_n \quad \text{من } \underline{a_r} = a_n \Rightarrow -\frac{1}{\epsilon} - \frac{1}{\epsilon} = -\epsilon \quad \text{من } \underline{a_r} = a_n \quad \text{من } \underline{a_r} = a_n \Rightarrow -\frac{1}{\epsilon} - \frac{1}{\epsilon} = -\epsilon$$

MAHAN

$$a_n = -\epsilon, -\epsilon, -\frac{r}{\epsilon} \Rightarrow q = \frac{a}{\epsilon}$$

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$$\underbrace{a_1 + a_2 + a_3}_{a} = V^r \rightarrow a + aq^r + aq^{2r} = V^r \rightarrow r_{\text{ext}} + 1 \cdot d \quad (1a)$$

$$b^r = ac$$

$$(a+d)^r = (a+q^r d)(a) \Rightarrow \cancel{a} + d^r + r_{\text{ad}} = \cancel{a} + q^r + q^r d$$

$$\Rightarrow \cancel{d^r} = \cancel{r_{\text{ad}}} \Rightarrow d = Va$$

$$r_{\text{ext}} + 1 \cdot d = V^r \Rightarrow r_{\text{ext}} + V \cdot a = V^r \rightarrow a = 1 \Rightarrow \boxed{d = Va = V} \quad 5$$

حاصلات نزدماً متعاینه خستند چیس مر توانند عیب بارسند!

$$q = 1 \rightarrow r_{\text{ext}} = V^r \rightarrow a = \frac{V^r}{r_{\text{ext}}}$$

$$aq^r - a = d \xrightarrow{q=1} \frac{V^r}{r_{\text{ext}}} - \frac{V^r}{r_{\text{ext}}} = 0 \rightarrow d = 0$$