

$$a \times aq \times aq^2 = 9\varepsilon \rightarrow a^3 q^3 = 9\varepsilon \rightarrow aq = \varepsilon$$

$$a(1 + q + q^2) = 21$$

تقسیم بر $a^2 q^2$

$$\frac{1 + q + q^2}{a q^2} = \frac{21}{a^2 q^2}$$

چون q غیر صفری است

$$\begin{aligned} 19q^2 - 91q + 9 &= 0 \\ 9q^2 - 109q + 9 &= 0 \\ q^2 - 17q + 19 &= 0 \end{aligned}$$

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نقون

$$q = \frac{19}{9} = \varepsilon$$

$$q = \frac{1}{\varepsilon}$$

$$\varepsilon u^2 = (u^2 + \varepsilon)(u^2 - 2) = u^4 + 2u^2 - 1$$

$$(u^2 - \varepsilon)(u^2 + 2) \rightarrow u^2 = \varepsilon \rightarrow u = \pm \sqrt{\varepsilon}$$

if $u = 2 \Rightarrow 1, \varepsilon, 2$

جواب می شود $\rightarrow q = \frac{1}{\varepsilon}$

if $u = -2 \Rightarrow 1, -\varepsilon, 2$

$$S_n = a_1 \left(\frac{1 + \left(\frac{1}{\varepsilon}\right)^n}{1 - \left(\frac{1}{\varepsilon}\right)} \right) = \frac{1 \times 127}{9\varepsilon} = \frac{127}{1}$$

$$a + aq + aq^2 + aq^3 + aq^4$$

$$a(1 + q + q^2 + q^3 + q^4) = 127 \times \frac{121}{11} = 1417$$

$$A = \frac{9\varepsilon + 1}{\varepsilon} = 3218 \quad 9 \quad B = \sqrt{\frac{9\varepsilon}{1}} = \pm 1$$

$$\begin{aligned} A + B &= \begin{cases} 3218 + 1 = 3219 \\ 3218 - 1 = 3217 \end{cases} \end{aligned}$$

$$a_n = -2\varepsilon, -23 \frac{\varepsilon}{\varepsilon}, \dots$$

$$+ \frac{1}{\varepsilon} \Rightarrow a_n = \frac{n}{\varepsilon} - 2\varepsilon \frac{1}{\varepsilon} \Rightarrow a_{101} = \frac{101}{\varepsilon} - 2\varepsilon \frac{1}{\varepsilon} = \frac{101}{\varepsilon} - 2$$

$$b_n = 128, a_{101} \dots (a_n = 1) \rightarrow q^n = \frac{1}{128} \rightarrow q = \frac{1}{2}$$

$$a_1 + 2d, a_1 + 4d, a_1 + 6d$$

$$a^x + 12ad + 39d^2 = a^x + 10ad + 19d^2$$

$$12ad = 10ad + 19d^2 - 39d^2 \rightarrow 2ad = -20d^2 \rightarrow d = -\frac{a}{10}$$

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$$a + d, a + 3d, a + 5d$$

مجلات حمایت‌نند.

$$a^x + 12ad + 19d^2 = a^x + 9ad + 9d^2$$

$$12ad = 9ad + 9d^2 - 19d^2 \rightarrow 3ad = -10d^2 \rightarrow a = d = \frac{1}{\varepsilon} \rightarrow a = 2$$

$$a_{10} = \frac{1}{\varepsilon} \times 19^{\frac{1}{\varepsilon}} = 191$$

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$$3a^2, 2a^2, a^2$$

$$4a^2 = 3a^2 + a^2 \rightarrow a^2(\varepsilon a) = a^2(3 + a^2)$$

$$\varepsilon a = 3 + a^2$$

$$a^2 - \varepsilon a + 3 = 0$$

$$(a-3)(a-1) \rightarrow a = 1 \rightarrow \text{نابست نیست}$$

$$a = 3 \leftarrow \text{جواب}$$

✓

$$\frac{\delta}{\varepsilon} + n / \frac{1}{\varepsilon} + n / \frac{-1+n}{n-1}$$

$$\frac{1}{19} + \frac{1}{n} + \frac{n}{\varepsilon} = \frac{1}{\varepsilon} - \frac{\delta}{\varepsilon} + \frac{n}{2} \Rightarrow \frac{n}{\varepsilon} = \frac{-21}{19} \rightarrow n = -\frac{21}{\varepsilon}$$

$$a_n = -\varepsilon / -\delta, \frac{21}{\varepsilon} \rightarrow a = \frac{\delta}{\varepsilon}$$

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$$(a+d)^2 = a(a+9d)$$

$$a^2 + d^2 + 2ad = a^2 + 9ad \rightarrow d^2 = 7ad \rightarrow d = 7a$$

د می‌تواند باشد چون سوال شرط مجلات حمایت‌نند.

$$d - 7a = 0 \rightarrow a = \frac{d}{7}$$

$$\frac{d}{7} + \frac{1d}{7} + \frac{9d}{7} = 19 \rightarrow d + 1d + 9d = 19 \times 7 \Rightarrow 19d = 19 \times 7 \Rightarrow d = 7$$

$$\Rightarrow d = 7$$