

$$\frac{a}{2} + a + a_2 = 11 \Rightarrow \frac{1^2}{2} + 1^2, 11-4, 14 \xrightarrow{\times 2} 1 + 1^2 - 14 = 1^2 - 14 + 1 = 0 \rightarrow \begin{cases} 2, \frac{+1}{2} \checkmark \\ 2, \frac{+14}{2} = +7 \end{cases}$$

$\frac{a}{2} \times a \times a_2 = a^3, 9 \times 2 \rightarrow a, 2$

چون غیر صحیح است پس ۴ نشد. x

$$(2x)^2 = (x^2 - 2)(x^2 + 2) \rightarrow 4x^2, x^2 + 2x^2 - 4 \rightarrow x^2 - 2x^2 - 4 = 0 \rightarrow \Delta = b^2 - 4ac, 4 - 4(1)(-4) = 36$$

$$\rightarrow x^2 = \frac{-b \pm \sqrt{\Delta}}{2a} \xrightarrow{2 \times} \frac{2 \pm \sqrt{36}}{2} = \frac{2 \pm 6}{2} \rightarrow x = \pm 2 \begin{cases} \ominus \rightarrow 1, -4, 2 \propto \\ \oplus \rightarrow 1, 4, 2 \checkmark \end{cases} \Rightarrow x = 2 \rightarrow 2 = \frac{1}{2}$$

$$S_y = \frac{a(2^2 - 1)}{(2 - 1)} = \frac{1((\frac{1}{2})^2 - 1)}{(\frac{1}{2} - 1)} = \frac{1 \times \frac{-12V}{14 \times 14}}{-\frac{1}{2}} = \frac{12V}{14} = \frac{12V}{14} \times \frac{1}{14} = \left(\frac{12V}{14}\right) \checkmark$$

$$1 + 2 + 2^2 + 2^3 + 2^4 = \frac{121}{11} \xrightarrow{\times a} a + a_2 + a_2^2 + a_2^3 + a_2^4 = \frac{121}{11} \times 2^4, 121 \times 16 (396)$$

مجموع ۵ جمله اول

$$\text{در حالت صحیح} \rightarrow d = \frac{94-1}{4} = 1, 6 \rightarrow 1, 11, 6, 22, \frac{32}{A}, 43, 57, 6, 94$$

$$\Rightarrow A + B = 32, 6 + 1 = (4, 6)$$

$$\text{در حالت صحیح} \rightarrow \frac{9}{1} \times \frac{94}{1} = 9 \times 94 \rightarrow 2, 2 \rightarrow 1, 2, 4, \frac{14}{B}, 14, 32, 94$$

$$d = \frac{1}{2} \rightarrow a_n, d(n-1) + a, (-24) + \frac{1}{2}(n-1), \frac{1}{2}n - 24, 24 \rightarrow a_{1,1} = \frac{1}{2}(1,1) - 24, 24 = 1$$

$$b_n, b_2^{n-1} = 128 \times 2^{n-1} \rightarrow b_n = 1, 128 \times 2^2 = (2^2)^2 \rightarrow (2^2)^2 = 1^2 \rightarrow 2^2 = 1 \rightarrow \left(2 = \frac{1}{2}\right) \checkmark$$

$$\rightarrow (a + 9d)^2 = (a + 2d)(a + 14d) \rightarrow a^2 + 12ad + 34d^2, a^2 + 16ad + 14d^2 \rightarrow 2 \cdot d^2, -2ad$$

$$2 \cdot d = -2a \rightarrow \left(d = \frac{-1}{10}a\right) \checkmark$$

$$\rightarrow (a_r + 2d)^2, a_r(a_r + 9d) \rightarrow a_r^2 + 4d^2 + 2a_r d = a_r^2 + 9a_r d \xrightarrow{d \neq 0} 4d, 2a_r \rightarrow d = \frac{a_r}{2}$$

$$r = \frac{a_2}{a_1} = \frac{a_r + 2(d)}{a_r}, \frac{a_r + 2(\frac{a_r}{2})}{a_r} = 2 \rightarrow b_{1,1} = b_1 \times r^9 \rightarrow b_{1,1} = \frac{1}{2} \times 2^9, 2^9, 128 \checkmark$$

$$\begin{aligned}
 & 2a_r, 2a_r, a_{\varepsilon}, \dots \rightarrow 2(2a_r), 2a_r + a_r^r \rightarrow 4a_r^r, a_r(1+2^r) \rightarrow 4^r, 2+2^r \rightarrow 2^r - 4^r + 2^r \\
 & \rightarrow (2-1)(2-2) = 0 \rightarrow 2, 2 \Rightarrow 2=2 \checkmark \\
 & \quad \quad \quad \text{چون جملات} \\
 & \quad \quad \quad \text{مساوی اند} \rightarrow 2 \neq 1
 \end{aligned}$$

$$\begin{aligned}
 & a_{\varepsilon}, a_1, a_{13} \rightarrow a_{\varepsilon}, a_{\varepsilon}+4d, a_r+9d \xrightarrow{+c} a_{\varepsilon}+c, (a_{\varepsilon}+4d)+c, (a_{\varepsilon}+9d)+c \xrightarrow{a_r+c=k} \underbrace{k, k+4d, k+9d}_{\text{مندی}} \\
 & \rightarrow (k+4d)^r, k(k+9d) \rightarrow k^2 + 14d + 14dk = k^2 + 9kd \rightarrow 14d, kd \rightarrow k, 14d \\
 & \Rightarrow r = \frac{k+4d}{k} = \frac{16d}{14d} = \left(\frac{8}{7}\right) \checkmark
 \end{aligned}$$

$$\begin{aligned}
 & \text{مندی } a_1, a_{\varepsilon}, a_v \rightarrow a, ar^r, ar^q \rightarrow (a+d)^r, a(a+9d) \rightarrow a^2 + d^2 + 2ad, a^2 + 9ad \\
 & \text{حبابی } a_1, a_r, a_{10} \rightarrow a, a+d, a+9d \rightarrow d^r, Vad \xrightarrow{d \neq 0} d, Va \rightarrow a, \frac{d}{V}
 \end{aligned}$$

$$\rightarrow a+a+d+a+9d = 4a+10d = 3\left(\frac{d}{V}\right) + 10d = \frac{3d}{V} + \frac{10d}{V} = \frac{13d}{V} \cdot V \rightarrow \frac{d}{V}, 1 \rightarrow \left(\frac{d}{V}\right) \checkmark$$