

$$b = \frac{a+c}{r} \rightarrow \frac{1+5^4}{1} = 32/5 = (A)^{(19)}$$

$$b^r = ac \rightarrow b^r = 5^4 \rightarrow b = \pm 1 \in (B)$$

$$A+B = 32/5 + 1 = 37/5$$

$$32/5 - 1 = 27/5$$

$$-2^4, -2^3/5, \dots, d = \frac{1}{5}$$

$$a_n = \frac{1}{5}n - 2^4/5$$

$$a_{101} = 25/5 - 2^4/5$$

$$128, a_4, \dots$$

$$a_1 = 128$$

$$a_n = a_1 q^n = 1 \rightarrow 128 q^n = 1 \rightarrow q^n = \frac{1}{128}$$

$$q = \frac{1}{2}$$

$$a+2d, a+5d, a+8d$$

$$a+3sd+12d = a+15d+12da+2da \leftarrow b^r = ac$$

$$20d + 12ad - 10da = 0$$

$$2d(10d+a) = 0$$

$$d = -\frac{a}{10}$$

$$q = \frac{1}{2}$$

$d = 0$ رسته صاف
تلفظ جدت

مکانیزم

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کرام صفریان 10A تالیف 15

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(1)

$$a, aq, aq^2$$

$$((10^4))^r = 5^4 \rightarrow (10^4) = (5^4) \quad aq = 5$$

$$a = \frac{5}{9}$$

$$a + aq + aq^2 = 21$$

$$a + aq^2 = 17$$

$$\frac{5}{9} + 5q = 17 \rightarrow 5 + 5q^2 = 17q$$

$$5q^2 - 17q + 5 = 0$$

$$q = \frac{5}{17} \checkmark$$

$$b^r = ac \rightarrow 5^4 = 2^4 + 5^4 - 2^4 - 1 \quad (2)$$

$$5^4 - 2^4 - 1 = 0$$

$$(5^2 - 2^2)(5^2 + 2^2) = 0$$

$$x = \pm 2$$

$$q > 0$$

$$x = +2 \rightarrow 1, 4, 16, \dots$$

$$\times \frac{1}{4} \quad \times \frac{1}{4}$$

$$S_v = 1 \left(\frac{1 - (\frac{1}{4})^v}{1 - \frac{1}{4}} \right) = 2^v \left(1 - \frac{1}{4^v} \right) = 2^v - \frac{1}{2^v}$$

$$15 - \frac{1}{2} = \frac{29}{2}$$

$$a_1 = 3^5$$

$$S_n = a_1 \left(\frac{q^n - 1}{q - 1} \right) = 3^5 \left(\frac{q^n - 1}{q - 1} \right)$$

0

$$2, \frac{1}{2}, \dots, \alpha_n = -\frac{1}{2}n + \frac{9}{2} \quad (9)$$

$$\alpha_5 = -\frac{1}{2} + \frac{9}{2} = \frac{8}{2} \rightarrow \frac{8}{2} + 2c = b_1$$

$$\alpha_1 = -\frac{1}{2} + \frac{9}{2} = \frac{8}{2} \rightarrow \frac{8}{2} + 2c = b_1$$

$$\alpha_{11} = -\frac{11}{2} + \frac{9}{2} = -1 \rightarrow -1 + 2c = b_1$$

$$b_1 = 2c$$

$$\frac{1}{2} + 2c + \frac{1}{2}c = \frac{8}{2} + \frac{8}{2}c - c - \frac{8}{2}$$

$$\frac{1}{2} + \frac{8}{2} = \frac{1}{2}c - \frac{1}{2}c$$

$$-\frac{1}{2}c = \frac{7}{2} \rightarrow c = \frac{7}{-1} = \boxed{-7}$$

$$C_{\text{شماره}} \Rightarrow -7, -8, -\frac{7}{2}, \dots$$

$$q = \frac{8}{2}$$

$$\alpha_1 + \alpha q^3 + \alpha q^5 = 11 \quad (10)$$

$$\alpha_1 = 1$$

$$\alpha_5 = 1 \Rightarrow \alpha q^5 = a + d \Rightarrow d = a(q^5 - 1)$$

$$\alpha_1 = 1 \rightarrow a + q(a(q^5 - 1)) = \alpha q^5 =$$

$$q q^5 - 1 = q^6 - 1$$

$$\downarrow q^6 = x$$

$$x^2 - 9x + 1 = (x-1)(x-1) = 0$$

$$d = 1(1^5 - 1) = 0$$

$$\alpha_1 = 1$$

$$a, a+d, a+2d, a+3d$$

$$b_1$$

$$b_2$$

$$b_3$$

$$\frac{b_2}{b_1} = \frac{b_3}{b_2} = q \rightarrow \frac{a+2d}{a+d} = \frac{a+3d}{a+2d}$$

$$a^2 + 4ad + 4d^2 = a^2 + 2ad + 3d^2$$

$$2d^2 = 2ad \rightarrow d = a$$

$$C_{\text{شماره}} = 2a, 4a, 6a$$

$$q = 2$$

$$\alpha_1 = 2a = \frac{1}{2} \rightarrow a = \frac{1}{4}$$

$$C_{\text{شماره}} = \frac{1}{2}, \frac{1}{4}, 1, \dots$$

$$\alpha_n = \frac{1}{2} (2)^{n-1} \rightarrow \alpha_{10} = \frac{1}{2} (2^9) = \boxed{2^8}$$

$$aq, 2aq^2, aq^3$$

$$q^2 - 4q + 1 = 0$$

$$q = \frac{4 \pm \sqrt{16-4}}{2} = \frac{4 \pm \sqrt{12}}{2}$$

$$q = 1$$

$$2a = 11$$

$$a = \frac{11}{2}$$

$$aa^2 - a = d$$

$$\frac{11}{2} - \frac{11}{2} = 0$$