

گروه: دهم یکشنبه

سری: ۱۵

نام و نام خانوادگی: تانیا ترک تری

$$\frac{a}{q} + a + aq = 21 \Rightarrow \frac{r}{q} + r + rq = 21 \Rightarrow \frac{r}{q} + rq = 17 \Rightarrow rq^2 - 17q + r = 0 \Rightarrow$$

$$q^2 - 17q + 19 = 0 \Rightarrow (q-1)(q-16)$$

$$\frac{a}{q} \times a \times aq = 9r \Rightarrow a^3 = 9r \Rightarrow a = r$$

$$q = \frac{1}{r}, q = 16$$

$$x^2 + 4, 2x, x^2 + 4$$

$$(2x)^2 = (x^2 + 4)(x^2 - 4) \Rightarrow 4x^2 = x^4 + 2x^2 + 4x^2 - 16 \Rightarrow$$

$$\textcircled{1} x = 2 \quad \Lambda, 4, 2 \quad q = \frac{1}{2} \quad 4x^2 = x^4 + 2x^2 - 16 \Rightarrow x^4 - 2x^2 - 16 = 0 \quad y = x^2$$

$$\textcircled{2} x = -2 \quad \Lambda, -4, 2 \quad q = -\frac{1}{2} \quad y = \frac{2 \pm \sqrt{4+32}}{2} = \frac{2 \pm 6}{2} \Rightarrow y = 4, y = -2$$

$$S_n = a \frac{1-q^n}{1-q} \Rightarrow \Lambda \times \frac{1-(\frac{1}{2})^n}{1-\frac{1}{2}} \Rightarrow S_n = \frac{12n}{\Lambda}$$

$$1 + q + q^2 + q^3 + q^4 = \frac{121}{\Lambda} \Rightarrow \frac{1-q^5}{1-q} = \frac{121}{\Lambda} \Rightarrow q = \frac{1}{3}$$

$$S_n = a \frac{1-q^n}{1-q} \Rightarrow S_n = 2 \times 3 \times \frac{1-(\frac{1}{3})^5}{1-\frac{1}{3}} \Rightarrow S_n = \frac{\frac{2 \times 3 \times (1-\frac{1}{243})}{\frac{2}{3}}}{\frac{2}{3}} \Rightarrow S_n = 242$$

$$1, \frac{r}{q}, \frac{r}{q}, \left(\frac{\Lambda}{B}\right), \frac{19}{q}, \frac{22}{q}, 9r \quad q^{k+1} = \frac{b}{a} \Rightarrow q^4 = 9r \Rightarrow q = \pm 3$$

$$1, \frac{111\Delta}{q}, \frac{22}{q}, \left(\frac{321\Delta}{q}\right), \frac{r}{q}, \frac{221\Delta}{q}, 9r$$

$$d = \frac{b-a}{n+1} \Rightarrow \frac{9r}{q} = 101\Delta$$

$$A+B = 321\Delta + \Lambda = 401\Delta$$

$$-2r, -\frac{9\Delta}{q}, \dots \quad d = -\frac{9\Delta}{q} - (-2r) = -\frac{9\Delta}{q} + \frac{9r}{q} = \frac{1}{q}$$

$$a_{101} = -2r + 100d = 1$$

$$12\Lambda, a_r, \dots \quad a_{\Lambda} = 1 \Rightarrow 1 = 12\Lambda \times q^{\Lambda} \Rightarrow q^{\Lambda} = \frac{1}{12\Lambda} \Rightarrow q = \frac{1}{r}$$

$$a_1 + rd, a_1 + qd, a_1 + \lambda d$$

$$(a_1 + qd)^r = (a_1 + rd)(a_1 + \lambda d) \Rightarrow$$

$$\cancel{a_1^r} + r\cancel{a_1}d + r\cancel{q}d^r = \cancel{a_1^r} + \underbrace{\lambda ad + r\cancel{a_1}d}_{1 \cdot ad} + \lambda d^r \Rightarrow$$

$$rad + r \cdot d^r = 0 \Rightarrow rd(a + \lambda d) = 0 \Rightarrow \boxed{d=0}$$

$$a = -\lambda \cdot d \Rightarrow$$

$$\boxed{-\frac{a}{\lambda} = d}$$

$$\underbrace{a_1 + d}_{\frac{1}{r}}, \underbrace{a_1 + rd}_{\frac{1}{r}}, \underbrace{a_1 + \lambda d}_{1}$$

$$q + d = \frac{1}{r}$$

$$ra = \frac{1}{r} \Rightarrow a = \frac{1}{\lambda}$$

$$q = r$$

$$aq^q = \frac{1}{r} \times (r)^q = \frac{1}{r} \times \lambda \times r = \lambda$$

$$(a_1 + rd)^r = (a_1 + \lambda d)(a_1 + d) \Rightarrow$$

$$\cancel{a_1^r} + r\cancel{a_1}d + r\cancel{q}d^r = \cancel{a_1^r} + \underbrace{\lambda ad + r\cancel{a_1}d}_{\lambda ad} + \lambda d^r$$

$$rd^r - \lambda d^r = \lambda ad - r\cancel{a_1}d \Rightarrow rd^r = rad \Rightarrow$$

$$\cancel{r}d = \cancel{r}a \Rightarrow d = a$$

$$raq, raqr, aq^r \Rightarrow raqr = \frac{raq + aq^r}{r} \Rightarrow raqr = \underbrace{raq + aq^r}_{aq(r+q^r)}$$

$$q(r+q^r) = q(r+q^r) \Rightarrow rq = r + q^r$$

$$q^r - rq + r = 0 \Rightarrow (q-1)(q-r) = 0 \Rightarrow \boxed{q=r}, q=1 \times$$

$$r, \frac{v}{\epsilon}, \dots \quad d = \frac{v}{\epsilon} - \frac{\lambda}{\epsilon} = -\frac{1}{r} \quad a_r = \frac{\Delta}{r} \quad a_\lambda = \frac{1}{r} \quad a_{1r} = -1$$

$$\frac{\Delta}{\epsilon} + k, \frac{1}{\epsilon} + k, -1 + k \quad \left(\frac{1}{\epsilon} + k\right)^r = (-1 + k) \left(\frac{\Delta}{\epsilon} + k\right) \Rightarrow -\frac{\Delta}{\epsilon} - k + k^r + \frac{\Delta}{\epsilon}k = k^r + \frac{1}{\epsilon}k - \frac{\Delta}{\epsilon}$$

$$\cancel{k^r} + \frac{1}{r}k + \frac{1}{19} = \cancel{k^r} + \frac{1}{\epsilon}k - \frac{\Delta}{\epsilon} \Rightarrow \frac{1}{\epsilon}k = -\frac{r1}{19} \Rightarrow k = -\Delta/r\Delta$$

$$q = \frac{a_r + k}{a_\lambda + k} \Rightarrow \frac{-1 - \frac{r1}{\epsilon}}{\frac{1}{\epsilon} - \frac{r1}{\epsilon}} = \frac{r\Delta}{r0} = \frac{\Delta}{r} \Rightarrow \boxed{q = \frac{\Delta}{r}}$$

$$G_1 = A_1 \\ G_r = A_r \\ G_v = A_{1r}$$

$$a_1 = a \quad aq^r = a + d \quad aq^q = a + qd$$

$$a_1 + aq^r + aq^q = vr \Rightarrow a(1 + q^r + q^q) = vr \quad (aq^r)^r = a(aq^q) = a^r q^q$$

$$d = aq^r - a$$

$$q(aq^r - a) = aq^q - a \Rightarrow \lambda a = qaq^r - aq^q \Rightarrow \lambda a = qaq^r - aq^q \Rightarrow$$

$$qd = aq^q - a$$

$$\lambda = qaq^r - q^q \Rightarrow \lambda^r - q\lambda + \lambda = 0 \Rightarrow (\lambda-1)(\lambda-1) = 0 \Rightarrow q^r = \lambda \rightarrow q = r$$

$$a_1(1 + \lambda + q\epsilon) = vr \Rightarrow a_1 = 1 \quad a_\epsilon = aq^r = 1 \times \lambda = \lambda \Rightarrow \boxed{d = v}$$

$$q^r = 1 \rightarrow q = 1 \times$$