

$$\frac{a}{a_r} \times a_v \times a_q = 4f \Rightarrow a_r^3 = 4f \Rightarrow a_r = f \quad (1)$$

$$\frac{f}{a} + f + f q = 21 \xrightarrow{\times a} f + f a + f a^2 = 21 a \quad \text{از } q = \frac{a}{f} \text{ میگیریم}$$

$$\left(a - \frac{1}{f} \right) \div f$$

$$(x^2 + 4)(x - 2) = (20x)^2 \Rightarrow x^3 + 2x^2 - 8 = 4x^2 \Rightarrow (x^2 - 4)(x^2 + 2) = 0$$

$$x = \pm 2 \quad \text{و} \quad x^2 = -2 \quad \text{و} \quad x^2 = 2$$

$$\Lambda + f + 2 + 1 + \frac{1}{r} + \frac{1}{\varepsilon} + \frac{1}{\Lambda} = \frac{12V}{\Lambda}$$

$$a_1 = a q \Rightarrow 242q$$

$$a_r = a q^r \Rightarrow 242q^r \Rightarrow 242(1 + q + q^2 + q^3 + q^4) = 242 \times \frac{121}{\Lambda} = 2942 \quad (2)$$

$$d = \frac{4f - 1}{q} = 10/\omega \quad q = \frac{4f}{1} = q^4 \Rightarrow q = \pm 4 \quad A + B = \frac{f/\omega}{2f/\omega} \quad (3)$$

$$\hookrightarrow \text{در } d = 32/\omega = A \quad \hookrightarrow \text{در } d = \pm \Lambda = B$$

$$-2f, -23/\omega \rightarrow a_{101} = -2f + 2\omega = 1 \quad (4)$$

$$a_{\Lambda} = 12\Lambda \times q^{\Lambda} = 1 \Rightarrow q^{\Lambda} = \frac{1}{12\Lambda} \Rightarrow q = \frac{1}{12}$$

$$a + 2d, a + 4d, a + \Lambda d \quad (5)$$

$$(a + \Lambda d)(a + 2d) = (a + 4d)^2 \Rightarrow \cancel{a^2} + \cancel{2\Lambda ad} + \cancel{4\Lambda d^2} = \cancel{a^2} + \cancel{4\Lambda ad} + \cancel{16d^2} \div 2d \rightarrow -\Lambda d = a$$

$$a_r = -\Lambda d \quad a_v = -\varepsilon d \quad a_q = -2d \quad a_1 = -10d / a_v = -9d / a_r = -\Lambda d \quad d < \frac{0}{-9}$$

$$a_r = -9d$$

$$a + d, a + 3d, a + 5d \rightarrow \cancel{a^2} + \cancel{2\Lambda ad} + \cancel{5d^2} = \cancel{a^2} + \cancel{6\Lambda ad} + \cancel{25d^2} \rightarrow \quad (6)$$

$$2\Lambda d = 2d^2 \div 2d \rightarrow a = d$$

$$2a/f a/\Lambda a \Rightarrow a_1 = \frac{1}{f}, a_r = \frac{1}{f}, a_v = 1, a_f = 2 \Rightarrow q = 2$$

$$a_{10} = \frac{1}{f} \times \omega 12 = 12\Lambda$$

$$2a_r, 2a_v, a_f \quad f a q^r = a q^r + 2a q \quad (7)$$

$$2a q^r = a q (q^r + 2) \rightarrow f a = 2 + q^r \rightarrow (q - 1)(q - 2) = 0$$

$$q = 2 \checkmark$$

$$q = 1 \times$$

$$a_f, a_n, a_r$$

$$r, \frac{v}{f} \Rightarrow d = -\frac{1}{f}$$

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$$a + r d, a + v d, a + r d$$

$$b^r = ac \rightarrow (a - \frac{v}{f})^r = (a - \frac{r}{f}) (a - r) \rightarrow$$

$$a^r + \frac{r^2}{f^2} - \frac{v}{f} a = a^r + \frac{r}{f} - \frac{1}{f} a \rightarrow a = -\frac{1}{f}$$

$$\text{حيث } a_1 = -\frac{1}{f} - \frac{r}{f} = -f$$

$$\text{حيث } a_2 = -\frac{1}{f} - \frac{v}{f} = -d$$

$$\text{حيث } a_3 = -\frac{1}{f} - \frac{r}{f} = -\frac{2d}{f}$$

$$-f, -d, -\frac{2d}{f} \Rightarrow \boxed{q = \frac{d}{f}}$$

$$\text{حيث } a_1, a_f, a_v = v^r \rightarrow a + a q^r + a q^f = v^r$$

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$$\text{حيث } a, a + d, a + q d \rightarrow v a + b d = v^r$$

$$a(a + q d) = (a + d)^r \rightarrow \cancel{a^r} + \cancel{q a d} = \cancel{a^r} + \cancel{d^r} + \cancel{r a d} \rightarrow v a d = d^r \Rightarrow d = v a$$

$$* v a + b d \xrightarrow{\text{حيث } d} v^r a = v^r \Rightarrow a = 1, d = v$$