

① $\{ 11 \} \quad \dots \quad \{ 45 \}$ دس

$$\frac{11+45}{2} = \frac{144}{2} = 72$$

②

۱، ۲، ۳

۴، ۵، ۶، ۷، ۸، ۹، ۱۰، ۱۱، ۱۲

دس → ۳، ۱۲، ۲۹، ۱۲۰، ۳۴۲

$$\frac{3+12+29+120}{2} = 144$$

③

$$29 = 3n - 1$$

$$40 = 3n$$

$$1 = n$$

$$\frac{1}{2} (1 + 29) = 15$$

$$a_2 = 12$$

②

$$a_v = 14, 2$$

$$\frac{1}{v} x - 12 = -\frac{y}{1} x^2$$

$$a x^2 + b x + c =$$

$$-\frac{y}{1} x^2 + b x + c = 12$$

$$-\frac{y}{1} x^2 + v b + c = 14, 2$$

$$-a + ab + c = 12$$

$$-9, 1 + v b + c = 14, 2$$

$$ab + c = 19$$

$$v b + c = 2v$$

$$v b = 1$$

$$b = \frac{1}{v}$$

$$-a + 1 + c = 12$$

$$c = 11$$

$$a_1 = -\frac{1}{9, 1} x^2 + \frac{1}{1} x + 11 = 11, 1$$

$$\frac{12}{11, 1} = \frac{1}{0, 1} = \frac{1}{0, 1} = \frac{1}{0, 1} = \frac{1}{0, 1}$$

③

$$d = \frac{a_n - a_e}{\frac{1}{\epsilon}}$$

$$d = \frac{a_n - a_e}{\frac{v}{a}}$$

$$a_{10} = a + 9d = a + 9 \frac{a_n - a_1}{9} \Rightarrow a = -9 \frac{a_n - a_1}{9}$$

$$\frac{a_{10}}{d} = \frac{-9 \frac{a_n - a_1}{9} + 10 \frac{a_n - a_1}{9}}{\frac{a_n - a_1}{9}} = \frac{a_n - a_1}{\frac{a_n - a_1}{9}} = 9$$

(4)

$$4(a+d)^r = 2(a+rd)a + r(a+d)a$$

$$4a^r + 4d^r + 4rad = 2a^r + 2da + ra^r + rda$$

$$4d^r = ra^r + ad$$

$$-d^r \quad 0 = ra^r + ad - 4d^r$$

$$0 = r \frac{a^r}{d^r} + \frac{a}{d} - 4$$

$$a_1 = \frac{ra+d}{d}$$

$$-2 \quad \textcircled{1} \quad \textcircled{2} \quad \parallel \frac{1}{r}$$

$$\frac{a}{d} = -\frac{r}{r} + \frac{4}{r} \Rightarrow a = -rd + \frac{4}{r}d \Rightarrow$$

$$\frac{4b}{r} \quad \frac{rb}{r} \quad b$$

$$\frac{b+d}{r}, \frac{b-d}{r}, b, \dots$$

$$rb = d$$

$$b \left(\frac{b+d}{r} \right) = \frac{b^r + d^r - rbd}{r}$$

$$b^r + db = b^r + d^r - rbd$$

$$rbd = d^r$$



$$q = -1$$

$$rb, r\frac{b}{a}, bq$$

①

$$rb + bq = \varepsilon \frac{b}{a}$$

$$\frac{aq}{a_4} = q^r = \boxed{-4\varepsilon}$$

$$b(r+q) = \varepsilon \frac{b}{a}$$

$$r+q = \frac{\varepsilon}{a}$$

$$rq + q^r = \varepsilon \rightarrow q^r + rq - \varepsilon = 0$$

$$(q+\varepsilon)(q-1) = 0$$

$$q = -\varepsilon \underline{\underline{1}} \rightarrow \frac{\varepsilon}{0}$$

$$\frac{a q^r}{a^r q^r} + \frac{aq}{a^r} = \frac{q^r}{a^r} + \frac{q}{a} = r$$

②

$$\frac{q^r}{a^r} + \frac{q}{a} - r \Rightarrow \left(\frac{q}{a} + r\right)\left(\frac{q}{a} - 1\right) = 0$$

$$\frac{a^r}{a^r q} = \frac{a}{q} = \underline{\underline{1 \underline{\underline{1}} - r}} \quad \frac{q}{a} = \underline{\underline{1 \underline{\underline{1}} - r}}$$

$$a_r = \sqrt{a_\varepsilon}, \quad a q^r = \sqrt{a q^r}$$

(1)

$$a_\omega = r v$$

$$a_\omega \times a_r = a_\varepsilon^r \Rightarrow a q^\varepsilon \times q \sqrt{a q} = a q^r$$

$$\sqrt{a q} = a q$$

$$a q \rightarrow \frac{0.6}{0.001} = 1$$

$$\begin{aligned} a q &= 1 \\ a q^\varepsilon &= r v \Rightarrow q^r = r v \\ q &= r \end{aligned}$$

$$a = \frac{1}{r}$$

$$\left[\frac{1}{r} - \frac{1}{r} = \frac{r - r}{r} = \frac{1}{r} \right]$$