

$$\{1\}, \{2, 3, \varepsilon\} \{a, 4, v, 1, 9\}$$

$$1, 2, a, 10, \dots$$

$$10^{10}$$

$$9 \times 9 = 81 \{ \varepsilon a, \dots, \dots, \dots, 11 \} \quad (n^2 - 1)^2 + 1$$

$$1^2 + 1 = 9a$$

$$\frac{9a + 11}{2} = \text{number} = \frac{1 \varepsilon 9 = 17}{2}$$

$$\{1, 2, 3\}, \{4, a, 4, \dots, 11\} \{11, \dots, 19\} \dots \dots 11$$

$$\{ \varepsilon 0, \dots, 11 \} \{ 111, \dots, 191 \}$$

$$111 = (191 - 111) + 1 = 1 \varepsilon 1$$

$$\text{مجموع} = (1 \varepsilon 1 \times \frac{111 + 191}{2}) \div 1 \varepsilon 1 \Rightarrow \frac{111 + 191}{2} = 1 \varepsilon 1$$

$$a_0 + a_1 + a_2 + a_3 + a_4 + a_5 + a_6 + a_7 + a_8 + a_9$$

(11)

$$1^0, 1^1, 1^2, 1^3$$

$$\left[\frac{n}{k+1} \right] a \rightarrow \left[\frac{r}{r} \right] + a \left[\frac{1}{r+1} \right] + a + \left[\frac{a}{1+r} \right] \Rightarrow$$

$$S_{10} = 19 \rightarrow 1a + 1a = 19 \rightarrow a = -1$$

$$a_1 + a_2 + \dots + a_{19} \Rightarrow n = 19k + 1 \rightarrow \left[\frac{r}{r+1} \right] - 1, \left[\frac{a}{1+r} \right] - 1 \dots$$

$$a = \frac{1}{10} \times -1 \varepsilon = -\frac{1}{a}$$

$$a_1 a = 1 \varepsilon$$

1 \varepsilon

$$19a + 1b + c = 11, 1$$

$$-\frac{1 \varepsilon}{a} + 1b = \frac{11}{10} \rightarrow b = \varepsilon$$

$$-1a + 1b + c = 1 \varepsilon$$

$$1 \varepsilon a + 1b = 11, 1 \quad \left(1a \times \frac{-1}{a} \right) + \left(a \times \varepsilon \right) + c = 1 \varepsilon$$

$$a_1 = \frac{1 \varepsilon}{a} \quad \frac{a_1 a}{a_1} = a \quad \frac{1}{-a} \quad \frac{1}{10} \quad c = -1$$

$$a_\varepsilon = \kappa d + a \quad a_{1r} = \kappa a_1 + b$$

$$a_{1v} = \kappa d + a \quad a_{1v} = \kappa a_1 + b$$

$$-\kappa a + a = -\lambda d$$

$$a_{1r} = \kappa a_1 - \lambda a_1 = -\lambda a_1$$

$$a_{1v} = \kappa a_1 - \lambda a_1 = -\kappa a_1$$

$$d = \frac{a}{\varepsilon} \quad \frac{\kappa d + a}{\varepsilon d} = -\kappa$$

$$a_{1a} = \lambda da' - \lambda a' = da'$$

$$a(a' + \kappa d + \kappa ad) = da' + \lambda da + \kappa a' + \kappa da \quad (4)$$

$$a' + \frac{1}{\kappa} da - \kappa d' = 0 \quad (1 + \kappa d)(a - \frac{\kappa}{\varepsilon} d)$$

$$a = \begin{matrix} \rightarrow -\kappa d \\ \rightarrow +\frac{\kappa}{\varepsilon} d \end{matrix}$$

$$a_\varepsilon = a + \kappa d \quad \begin{matrix} \rightarrow -\kappa d + \kappa d = d \\ \rightarrow +\frac{\kappa}{\varepsilon} d + \frac{\kappa}{\varepsilon} d = \varepsilon ad \end{matrix}$$

$$\frac{a_\varepsilon}{a} = \frac{d}{d} = 1 \rightarrow \frac{\varepsilon ad}{d} = \varepsilon a$$

$$a, b, c$$

$$b, \frac{a}{\varepsilon}, \frac{c}{\varepsilon}$$

$$\downarrow \quad \downarrow \quad \downarrow$$

$$\frac{a'}{\varepsilon} = (a+d)(\frac{a+\kappa d}{\varepsilon}) \rightarrow \frac{a'}{\varepsilon} = \frac{a'}{\varepsilon} + \frac{\kappa da}{\varepsilon} + \frac{\kappa d'}{\varepsilon}$$

$$\frac{1}{\varepsilon} d(\kappa a + \kappa d) = 0 \quad \kappa a = -\kappa d$$

$$a = -\frac{\kappa}{\varepsilon} d$$

$$a = \frac{-\frac{d}{\varepsilon}}{\frac{\kappa}{\varepsilon}} = -1$$

$$\kappa x - 1 = -\kappa$$

$$a, b, c$$

$$\kappa b, \kappa a, c$$

$$\kappa a = \kappa a q + a q \kappa$$

$$\downarrow \quad \downarrow \quad \downarrow$$

$$\kappa a q \quad \kappa a \quad \downarrow a q \kappa$$

$$a q \kappa + \kappa a q - \varepsilon a = 0$$

$$a(q + \kappa q - \varepsilon) = 0 \quad (q + \varepsilon)(q - 1)$$

$$q = 1 \rightarrow X$$

$$q = -\varepsilon$$

$$q = \varepsilon \checkmark$$

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

$$ra^r = q^r + aq \quad q^r + aq - ra^r = 0 \quad (q + ra)(q - a)$$

$$q \left[\begin{array}{c} -ra \\ +a \end{array} \right] \frac{a^r}{aq} \left[\begin{array}{c} q^r + aq \\ -ra^r \end{array} \right] \left[\begin{array}{c} 1 \\ -\frac{1}{r} \end{array} \right]$$

$$a^r = aq^r \quad a^r = aq^r \quad \angle 10$$

$$aq = 1 \quad aq \leq rV \quad aq \times q^r = rV \rightarrow q = rV$$

$$a \times 11 = rV \quad a = \frac{1}{r}$$

$$\left. \frac{1}{r} - \frac{1}{r} = \frac{1}{r} \right\}$$