

$$1+0 \quad 1+1 \quad 1+2 \quad 1+3$$

$$(1) \quad (2) \quad (3) \quad (4)$$

$$\rightarrow n^2 + \frac{(n-1)n}{2} = a_n$$

$$a_1 = (1+0) + \frac{1 \times 0}{2} = 1 \dots + 10 = 10$$

✓

1

$$p_1 = 1, 1, 1, 1, \dots \rightarrow n^2$$

$$2a_1 = 1, 1, 1, 1, \dots \rightarrow \frac{n(n+1)}{2}$$

$$2a_1 = p_1 - p_2$$

$$n^2 - \frac{(n^2+n)}{2} = 1 \rightarrow n^2 - n^2 - n = 1 \rightarrow n(n-1) = 1$$

$$n(n-1) = 1 \rightarrow n = 1$$

✓

2

$$p_1 = 1, 1, 1, 1, \dots \rightarrow n+1$$

$$2a_1 = 1, 1, 1, 1, \dots \rightarrow n-1$$

$$p_1 = p_2 + p_3 \rightarrow n+1 = n-1 \rightarrow n = 1 \rightarrow n-1 = 0$$

$$n = n+1 = 1+1 = 2 \quad 1+1 = 2$$

1.1.15

3

$$a_1 = 1, a_2 = \frac{1}{2}, a_3 = \frac{1}{3}, a_4 = \frac{1}{4}, \dots$$

$$\frac{1}{2} + 1 = \frac{3}{2}$$

✓

4

$$b_1 = 1, b_2 = 1, b_3 = 1$$

$$a_n = 1, a_2 = 1, a_3 = 1, a_4 = 1$$

$$n = 1$$

✓

5

$$t_1 - t_0 = \epsilon d = 12 \quad d = 2$$

$$t_4 - t_1 = \delta d \Rightarrow \delta \epsilon = \frac{12}{3} = 4$$

②

$$t_1 = 5 \quad t_2 = 10 \quad t_2 - t_1 = \epsilon d \Rightarrow \epsilon d = 5 \quad (d = 5) \quad \text{②}$$

$$t_1 = 5 \quad t_2 = 11$$

$$h_n = \underbrace{5, 11, \dots}_{+1} \quad \Delta n = \delta \epsilon h_n \quad h_n = 5, 11, 19, 29, \dots$$

$$t_n = \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \dots$$

②

$$\omega = \frac{1}{n} = \epsilon n - 1$$

$$\frac{1}{n} < \epsilon n + 1$$

$$\frac{\epsilon n - 1}{n + 1} < \frac{1}{n}$$

$$\Delta n = \epsilon < 4n + 4$$

$$n < 10 \quad n < \frac{1}{\epsilon} \quad n \leq 4$$

①, ②, ④

$$t_n = 0, 1, 1, 1, 1, 1, \dots$$

$$a_n = -\frac{1}{n} + \frac{1}{n} = 0$$

②

$$\epsilon_n = 1$$

$$\epsilon_n = \frac{1}{n}$$

$$\epsilon_n = 0$$

$$a_n = -\frac{1}{n} + b =$$

$$b = \frac{10}{n}$$

$$\epsilon_n = \left(-\frac{1}{n}\right) + \delta \left(\frac{10}{n}\right)$$

$$-\frac{1}{n} + \frac{10}{n} = \frac{9}{n} =$$

②

$$t_n = 1, 1, 1, 1, 1, 1, \dots$$

$$\frac{1}{n} + \frac{1}{n} + \frac{1}{n} + \frac{1}{n}$$

$$\epsilon_n = 1$$

$$a_n = 1$$

$$\epsilon_n = 1$$

$$a_n = n^2 - n - 4$$

$$-4 = 1 + b = 4$$

$$b = -1$$

$$a_1 + d = \epsilon_1 \quad t_2 = \epsilon_1$$

$$\epsilon d = 6 \quad (d = 6)$$

$$a_1 + \delta = \epsilon_1$$

$$a_1 = \epsilon_4$$

$$a_n = \epsilon_4(n-1)\delta \Rightarrow$$

$$\epsilon_4 + \delta n - \delta \Rightarrow \delta n + \epsilon_1$$

②

$$n^2 - n - 4 = \delta n + \epsilon_1$$

$$n^2 - 4n - 2V =$$

$$(n-4) \parallel (n+1)$$

$$n = \begin{pmatrix} 4 \\ 1 \end{pmatrix} = 1$$

$$n_9 = 2 \times 9 + 1$$

$$\epsilon d + \epsilon_1 =$$

$$\epsilon_4$$