

14, 15

دم بر

12

نیا جمع

$$t_n = 0, 1, 1^2, 1^3, \dots \quad d = 1 \Rightarrow t_n = t_{n+1}, \quad t_{10} = 2 \times 10 + 1 = 21$$

(2)

$$\left. \begin{array}{l} t_n = 1, 1, 1^2, 1^3, \dots \quad d = 1 \Rightarrow t_n = t_{n+1} \\ t_1 = 1, \quad t_{10} = 1 \times 10 + 1 = 11 \end{array} \right\} S_{10} = \frac{10}{1} (1 + 11) = 120$$

(الف 2)

(2)

$$\left. \begin{array}{l} \text{مجموعه } t = t_1, t_2, t_3, t_4, t_5 \\ t_1 = 1 \times 1 + 1 = 2, \quad t_5 = 5 \times 5 + 1 = 26 \end{array} \right\} S = \frac{5}{1} (2 + 26) = 70$$

(ب)

$$1 + \sqrt{r}, r, r - \sqrt{r} \quad \left\{ \begin{array}{l} a_1 + a_{rr} = 1 + r^2 d - (a_1 + r^2 d) = r d = r - r\sqrt{r} \\ d = a_r - a_1 = r - (1 + \sqrt{r}) \Rightarrow d = 1 - \sqrt{r} \end{array} \right.$$

(2)

$$a_n = \omega^x, r \times \omega^x, \omega^y$$

$$d = r \times \omega^x - \omega^x = \omega^x (r - 1) = \omega^x \times r \rightarrow d = a_r - a_1 = a_r - a_1$$

$$= \omega^y \times \omega^x = \omega^x (\omega^{y-x} - 1) = \omega^x \times r \Rightarrow \omega^{y-x} - 1 = r \Rightarrow \omega^{y-x} = \omega \Rightarrow y - x = 1$$

$$b_n = x, r, y \Rightarrow d = r - x = y - r \Rightarrow r - x = r - 1 \Rightarrow x = 1, \quad y = r \Rightarrow x \cdot y = r$$

$$r \times r - 1, r \times 1, y \times x \Rightarrow d = r \times r - (r \times 1) \Rightarrow d = r = y \times x - (r \times 1) \Rightarrow r \times 1 = r$$

$$\Rightarrow r \times x = r \times x \Rightarrow x = 1 \quad \Rightarrow a_n = -1, 0, r \Rightarrow a_n = r \times n - 1 \Rightarrow a_r = r \times r - 1 = r^2 - 1$$

(2)

$$a_n = 1, 0, 1, \dots \Rightarrow a_n = t_{n+1} \Rightarrow a_{10} = 1 \times 10 + 1 = 11$$

$$b_n = 1, 0, 1, \dots \Rightarrow a_n = t_{n-1} \Rightarrow b_{10} = 1 \times 10 - 1 = 9$$

$$S_{10} = 10 - 1 \rightarrow 10 - 1 \leq 1 \Rightarrow 9 \leq 1 \Rightarrow n \leq 10$$

(1, 1, 1, 1, 1, 1, 1, 1, 1, 1)

(2)

Scanned with

$$a_1 + a_r + a_p = r_1 \Rightarrow a_r - d + a_r + a_r + d = r_1 = r_1 \Rightarrow a_r = r_1 \Rightarrow a_r = v$$

$$a_1 + a_p + a_\omega = l_\omega \Rightarrow a_r - r_d + a_r + a_r + d = l_\omega \Rightarrow a_r = r_d$$

$$a_1 + a_r + a_p = r_1 \Rightarrow a_1 + r_\omega + v = r_1 \Rightarrow a_1 = -r_1$$

$$\frac{a_r - a_r + a_1}{a_1} = \frac{r_\omega - v - r_1}{-r_1} = \frac{v}{-r_1} = \boxed{-\frac{1}{r_1}} \checkmark$$

(y)

$$a_1 + a_r + a_p = l_\omega \Rightarrow a_r - d + a_r + a_r + d = l_\omega \Rightarrow a_r = \omega$$

-1

$$a_f + a_\omega = r_\omega \Rightarrow a_r + r_d + a_r + r_d = r_\omega + d = l_\omega + d = r_\omega \Rightarrow \omega = l_\omega \Rightarrow d = r$$

$$r, \omega, l, \dots \Rightarrow a_n = r_{n-1} \Rightarrow a_n (r_x(d) - 1) = r_1 \checkmark$$

(y)

$$a_1 + a_r + a_p = a_r - d + a_r + a_r + d = r_\omega$$

$$a_\omega = a_r + r_d = r_\omega \Rightarrow a_r = r_\omega$$

-9

$$a_1 + a_r + a_p + \dots + a_q = q a_\omega \quad S_q = q S_p \Rightarrow q a_\omega = q \times r_\omega \Rightarrow a_\omega = r_\omega$$

$$\frac{a_r}{a_v} = \frac{a_r + l d}{a_r + \omega d} = \frac{a_r + l n (\frac{r}{p} a_r)}{a_r + \omega (\frac{r}{p} a_r)} = \frac{a_r + l r_\omega}{a_r + \frac{l \omega}{p} a_r} = \frac{l r_\omega}{\frac{l r}{p} a_r} = \boxed{\frac{r}{p}} \checkmark$$

(y)

$$t_1 = l \quad t_v = r_\omega \Rightarrow d = \frac{r_\omega - l}{y} = \frac{r_\omega}{y} = r \Rightarrow t_n = f_n + v$$

-10

$$t_f = (f \times f) + v = r r, \quad a_1 = r_1, a_f = r r \Rightarrow d = \frac{r r - r_1}{r} = -\omega \checkmark$$

(110)

$$-\omega = \frac{l r - r_1}{n+1} \Rightarrow -\omega n + d = r_\omega \Rightarrow n = r \Rightarrow a_r = r', \quad a_1, a_r, a_p, a_\omega \text{ levels } r, r, l, r, l, l$$

$$\hookrightarrow n+1 = \omega \rightarrow n = r$$