

12 سؤالات

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$$t_n = 2, 9, 17, 14, \dots$$

$$f_{n+1}$$

$$f_{n+1} \quad (الف)$$

$$f_1 \quad (ب)$$

$$t_0 = 1 \times 10 + 1 = 11$$

$$t_n = 4, 10, 17, 11, \dots \rightarrow t_n = f_{n+1}$$

$$S_n = \frac{n(n+1)}{2} \quad L = (10 \times 4) + 5 = 45 \quad S_{10} = \frac{10}{2} (4 + 45) = 245$$

$$245 \quad (الف)$$

$$f_{10} \rightarrow t_{10}, t_{11}, t_{12}, t_{13} \rightarrow S_{10} = \frac{10}{2} (11 + 15) = 130$$

$$130 \quad (ب)$$

$$t_{10} = 4 \times 10 + 5 = 45 \quad t_{11} = 15$$

$$1 + \sqrt{r}, \dots, r - \sqrt{r}, \dots$$

$$\sqrt{r} = 1, \sqrt{r}$$

$$t_{10} - t_{11} = 2d \rightarrow 2(1 - \sqrt{r}) = 2 - 2\sqrt{r}$$

$$d = 1 - \sqrt{r}$$

$$a_n = 2^x, 5 \times 2^x, 2^y, \dots \quad \Delta^x = 2^x$$

$$b_n = x, y, \dots \quad 1 \times 5 = 5$$

$$x + y = 5 \times 5 \rightarrow 1, 5$$

$$2x - 1, 2x - 1, 4x, \dots$$

$$b = \frac{a + c}{2} = 2x - 1 = \frac{2x - 1 + 4x}{2} = 2x - 1 = \frac{4x - 1}{2} = 2x - 1 = \frac{x(2x - 1)}{1 \times 1}$$

$$\rightarrow 2x - 1 = 2x - 1 = 1 = x \quad (x = 1)$$

$$a_n = r, d, V, \dots \quad t_n = r_{n+1}$$

$$b_n = r, d, n, \dots \quad t_n = r_{n-1}$$

$$t_n \cdot \frac{t_{n+1}}{t_{n-1}} = q_{n-1}$$

$$\frac{t_{n+1}}{t_{n-1}} = q_{n-1}$$

$$a_{r_0} = r_0 \times r + 1 = r_1$$

$$V \rightarrow \frac{t_{n+1}}{t_{n-1}}$$

$$q_{n-1} \leq r_1 \rightarrow q_n \leq r_2 \quad n \leq V$$

$$a_1 + a_r + a_r = r_1 \quad a_r - a_r + a_1 = r_1 \quad t_n = r_{n-1} - r_1$$

$$a_1 + a_r + a_d = 10d$$

$$a_1$$

$$r_2 - r = r_1$$

$$\frac{a_r - a_r + a_1}{a_1} = \frac{r_2 - V + (-r_1)}{-r_1}$$

$$r a_r = r_1 \rightarrow a_r = V$$

$$a_1 = -r_1$$

$$= \frac{V}{-r_1} = (-r)$$

$$a_r = \frac{a_1 + a_d}{r} \rightarrow r a_r = 10d \rightarrow a_r = r_2$$

$$a_1 + a_r + a_r = 10d \rightarrow r a_r = 10d \rightarrow a_r = d$$

$$a_r + a_d = r_2 \rightarrow a_1 + a_r + a_r + a_r + a_d = r_2 + 10d \rightarrow 2a_r = r_2 \rightarrow a_r = 1$$

$$a_n = r_{n-1} \quad a_{r_0} = r_0 - 1 = r_1$$

$$a_1 \neq 0 \quad S_a = q S_r \quad \frac{a_{r_0}}{a_r} = ?$$

$$S_r = r a_r \rightarrow S_q = r V a_r \quad S_a = q a_d \rightarrow r V a_r = q a_d$$

$$\rightarrow a_r = a_1 + d$$

$$r V (a_1 + d) = q (a_1 + d) = r V a_1 + r V d = q a_1 + r q d$$

$$\rightarrow a_d = a_1 + r d$$

$$\rightarrow 11 a_1 = q d \rightarrow a_1 = \frac{1}{r} d \quad d = r a_1$$

$$\left. \begin{array}{l} a_{r_0} = a_1 + 19d \\ a_r = a_1 + 9d \end{array} \right\} \frac{a_{r_0}}{a_r} = \frac{a_1 + 19(r a_1)}{a_1 + 9(r a_1)} = \frac{r_2 a_1}{15 a_1} = (-r)$$

$$\left. \begin{array}{l} a_1 = 11 \\ a_r = r_2 \end{array} \right\} d = \frac{t_m - t_n}{m - n} = \frac{r_2 - 11}{9} = r \rightarrow t_n = r n + V$$

$$t_f = t_x + V = r x$$

$$a_{r_0} = r_1, a_r = r_2, a_{r_1} = r_3$$

$$\frac{r_3 - r_1}{r_2 - r_1} = \frac{10d}{r} = -d$$

$$t_n = d n + r$$

$$17 = -d n + r_2 \rightarrow -r_0 = -d n \rightarrow n = 4$$

$$4 - 1 - 1 = (-4)$$