

الف) $t_n = 5, 9, 13, 17, \dots$
 $d = 4$

$t_n = f_{n+1}$

-۱

ب) $t_0 = f_{x+1} + 1 = 41$

الف) $t_n = 8, 10, 12, 14, \dots$
 $t_n = f_{n+2}$

$S_n = \frac{n}{2}(a + f_2) = 2(48) = 96$

-۲

$t_{10} = f_1 + 2 = 42$

ب) حد آخر: $n = 32$

$S_n = \frac{1}{2}(102 + 130) = (f \times 32) = 1128$

حد اول: $n = 20$

$t_{20} = 20 \times f + 2 = 102$

$t_{32} = 32 \times f + 2 = 130$

$1 + \sqrt{3}, 2, 3 - \sqrt{3}, \dots$

-۳

$t_n = 1 + \sqrt{3} + (n-1)2 = 1 + \sqrt{3} + 2n - 2\sqrt{3} = \boxed{n - n\sqrt{3} + 2\sqrt{3}}$

$d = 2 - \sqrt{3} - 2 = -\sqrt{3}$

$t_{22} = 22 - 22\sqrt{3} + 2\sqrt{3} = 22 - 20\sqrt{3}$
 $t_{20} = 20 - 20\sqrt{3} + 2\sqrt{3} = 20 - 18\sqrt{3}$

$a_n = 2^n, 2 \times 2^n, 2^y \Rightarrow 2^n, 2 \times 2^n, 2^y$ $x=1$

$b_n = x, 2, y$ $x+d=2$
 $-r+d=y$ $x-r=y \Rightarrow x+y=f$

$2, 2\sqrt{2}, 1, 2, \dots$
 $+2, +2$

$2^x = 2^y \Rightarrow y = x$

$xy = 2$

$2x-1, 2x-1, 2x, \dots \Rightarrow -1, 0, 1, \dots$
 $+1, +1$

-۴

$d = 2x-1 - 2x+1 = 2, d = 2x - 2x+1 = 1 \Rightarrow 2x+1 = 2 \Rightarrow 2x = 1 \Rightarrow x = \frac{1}{2}$
 $t_n = 2n - 1 \Rightarrow 12 = 2n - 1 \Rightarrow \boxed{6}$

s.a.m

$$a_n = r, \Delta, V, \dots$$

$$[r, r] \Rightarrow t_n = q_{n-1}$$

-9

$$b_n = r, \Delta, \Lambda, \dots$$

$$a_n = r_{n-1}$$

$$\hookrightarrow r_{n-1} + 1 = f1 \Rightarrow q_{n-1} = f1 \Rightarrow q_n = fr \Rightarrow n = V$$

$$b_n = r_{n-1} = f1 \Rightarrow r_n = fr \Rightarrow n = 1f \quad +v - fr - 1 = f1$$

$$\left. \begin{aligned} a_1 + a_r + a_p = r1 &\Rightarrow r_{a_r} = r1 \Rightarrow a_r = V \\ a_1 + a_r + a_d = 1d &\Rightarrow r_{a_r} = 1d \Rightarrow a_r = r_d \end{aligned} \right\} \begin{aligned} r_d + V + a_1 &= r1 \Rightarrow a_1 = -r_d \end{aligned}$$

$$\frac{a_r - a_r + a_1}{a_1} = \frac{r_d - V + (-r1)}{-r1} = \frac{V}{-r1} = -\frac{1}{r}$$

$$a_1 + a_r + a_p = 1d \Rightarrow r_{a_r} = 1d \Rightarrow a_r = d \Rightarrow a + d = d$$

-1

$$a_r + a_d = r_u + v_d = r_d \Rightarrow b + d = r_d \Rightarrow d = 1d \Rightarrow d = r$$

$$a + r = d \Rightarrow a = r \quad t_n = r_{n-1} \Rightarrow t_{10} = \boxed{r-1 = r}$$

$$\begin{aligned} S_n &= q_s \Rightarrow \frac{q}{r} (r_u + r_d) = q \left(\frac{r}{r} (r_u + r_d) \right) \Rightarrow q_{a+r} r_d = r_v + r_v d - q \\ \Rightarrow q(a + r_d) &= q(r_u + r_d) \Rightarrow d = r_a \Rightarrow \frac{a \cdot r}{a_v} = \frac{a + 19d}{a + q_d} = \frac{r q a}{1r a} = \boxed{r} \end{aligned}$$

$$a_v - a_1 = q_d \Rightarrow r_f = q_d \Rightarrow d = r$$

-10

$$a_n = r_n + v \Rightarrow a_f = 14 + v = r_r$$

$$r_d = r_{r1} = -1d \Rightarrow d = -d$$

$$b_{n+1} = n + r = r \quad \boxed{n = r}$$

$$b_n = -2n + fr \Rightarrow -2n + fr = 1r \Rightarrow -2n = -r \Rightarrow n = r$$

s.a.m