

$$\underbrace{a, 9, 13, 17, \dots}_{+k \quad +k \quad +k} \quad a_n = f(n+1) \quad \leftarrow \text{الف}$$

$$a_n = f(n+1) - f(1) \quad \leftarrow \text{ب}$$

$$\underbrace{9, 10, 11, 12, \dots}_{+k \quad +k} \quad S_n = \frac{n}{2} (a_1 + (n-1)d) \quad \leftarrow \text{الف}$$

$$S_n = \frac{10}{2} (11 + 9 \times 4) = f(n)d + f(n) \quad \leftarrow \text{ب}$$

$$\frac{a}{r_0} + \frac{a}{r_0} + \frac{a}{r_1} + \frac{a}{r_2} = f(n) + 11ad = f(4) + 11a(f) = f(4) \quad \leftarrow \text{ب}$$

$$\underbrace{1, \sqrt{r}, r, r-\sqrt{r}, \dots}_{+1-\sqrt{r} \quad +1-\sqrt{r}} \quad a_n = \frac{a}{r^n} = (1-\sqrt{r}) \times r^n + \sqrt{r} - ((1-\sqrt{r}) \times r^n + \sqrt{r}) \quad \leftarrow \text{ب}$$

$$a_n = (1-\sqrt{r})n + \sqrt{r} \quad \leftarrow \text{ب}$$

$$= r_0 - r_0\sqrt{r} + \sqrt{r} - r^n + r^n\sqrt{r} - \sqrt{r} = r_0 - r^n\sqrt{r} \quad \leftarrow \text{ب}$$

$$\underbrace{r_0 x^n, r_0 x^n, r_0 x^n, \dots}_{r_0 x^n, r_0 x^n, r_0 x^n, \dots} \quad r_0 x^n + r_0 x^n = r_0 x^n \quad \leftarrow \text{ب}$$

$$r_0 x^n = \frac{a}{(r+r)} = d \quad \leftarrow \text{ب}$$

$$r_0 x^n = \frac{a}{d} = d \quad \leftarrow \text{ب}$$

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$$x, y, z \rightarrow f = x, y, z, f = x \quad \boxed{x=1} \quad \leftarrow \text{ب}$$

$$xy = 1 \times 2 = 2 \quad \leftarrow \text{ب}$$

$$f(x-1) = r_0 x - f + 4x \quad \leftarrow \text{ب}$$

$$f_2 = r_0 x - f \quad \leftarrow \text{ب}$$

$$f_2 = r_0 x - f, x \geq \frac{1}{2} \quad \leftarrow \text{ب}$$

$$a_n = r_0 x - 4 \quad \leftarrow \text{ب}$$

$$a_f = r_0(f) - 4 = 4 \quad \leftarrow \text{ب}$$

$$\underbrace{r_0, a_1, \dots, b_n}_{r \quad r} = r_{n-1} \quad \leftarrow \text{ب}$$

$$\underbrace{r_0, a_1, \dots, a_n}_{r \quad r} = r_{n+1} \quad \leftarrow \text{ب}$$

$$c_n = 4n - 1 \quad \leftarrow \text{ب}$$

$$4n - 1 < f(1) \quad \leftarrow \text{ب}$$

$$a_{r_0} \geq f(1) \quad \leftarrow \text{ب}$$

$$4n < f(r) \quad \leftarrow \text{ب}$$

$$n < \frac{f(r)}{4} \quad \leftarrow \text{ب}$$

$$b_{r_0} = a_9 \quad \leftarrow \text{ب}$$

$$a_1 + a_2 + a_3 + \dots + r_1 = r_1 + r_2 + r_3 + \dots + r_n \rightarrow a_1 + d = V$$

$$a_1 + a_2 + a_3 + \dots + r_1 = r_1 + r_2 + r_3 + \dots + r_n \rightarrow a_1 + r_2 = r_1 + d$$

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$$a_1 + r_1 = r_1 + d \rightarrow a_1 = r_1$$

$$a_1 + a_2 + a_3 + \dots + r_1 = r_1 + r_2 + r_3 + \dots + r_n \rightarrow a_1 + r_2 = r_1 + d$$

$$a_1 + a_2 + a_3 + \dots + r_1 = r_1 + r_2 + r_3 + \dots + r_n \rightarrow a_1 + r_2 = r_1 + d$$

$$-1ad = -fa \rightarrow \boxed{d=r}$$

$$a_1 + d = a_2 \rightarrow a_1 + d = a_2 \rightarrow \boxed{r}$$

$$a_n = a_1 + (n-1)d$$

$$S_n = \frac{n}{2} (a_1 + a_n) = \frac{n}{2} (r_1 + r_n)$$

$$q(a_1 + r_2) = r_2(a_1 + d) \rightarrow q_1 + r_2d = r_2a_1 + r_2d$$

$$q_1 + r_2d = r_2a_1 + r_2d \rightarrow q_1 = r_2a_1$$

$$\frac{a_1 + r_2}{a_1} = \frac{a_1 + r_2}{a_1 + r_2} \rightarrow \frac{a_1 + r_2}{a_1 + r_2} = \frac{r_2a_1}{r_2a_1} \rightarrow r_2$$

$$a_1 = 11 \rightarrow a_1 + 4d = r_2 \rightarrow 11 + 4d = r_2 \rightarrow d = r_2 - 11$$

$$a_1 = f_1 + V \rightarrow r_2 = b_1$$

$$b_1 = r_2$$

$$b_1 + r_2d = r_2$$

$$b_1 = r_2$$

$$d = -d$$

$$n = r$$