

کلیف

14, 20

1, a

$$an = aq^{n-1} = \frac{1}{r} \times r^9 = \boxed{r^8}$$

$$\frac{q q^{14}}{d q^{14}} = q^k = r^k = \boxed{14}$$

$$a_k = \frac{1}{r} \times r^k = r^{k-1}$$

$$b^r = ac \rightarrow b^r = r \times 254 \rightarrow b = 71$$

$$q^2 = 4f \rightarrow q = 2$$

$$\frac{1}{r} x r^{n-1} = 12 \rightarrow r^{n-1} = 42 \quad \text{Mag}$$

$$\boxed{n=5} \leftarrow r^4 = 42 \leftarrow r^{n-1} = r^4$$

$$\frac{94}{15} = 1 \rightarrow 2 \rightarrow 9 = 11$$

$$q = r$$

$$q=r \rightarrow a\omega = vr = a_1 \times q^{\sqrt{r}}$$

$$a_{12} = a_1 \times q^1 \times q^2$$

$$1 \vdash x \sim y = x \wedge y$$

~~$\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \dots, \frac{1}{96}$~~

~~$$a_{11} = 9 \times 10^9 = 9 \times 10^9 = 9 \times 10^9$$~~

α, ω

$$\frac{a}{a^r} \times \frac{a}{a^q} \times a \times a^d \times a^f = a = 12^r \rightarrow a = r$$

$$\frac{1}{2} \times 18 = 9$$

$$b^r = ac \rightarrow (r\sqrt{r})^r, r^r = r^{a+b}$$

$$r r = r \rightarrow a + b = \frac{a}{r} \quad (51)$$

$$b^r = ac \rightarrow n^r = (n+1)(1-n)$$

11. 11. 11

$$u^r = x - u^r + 1 - \mu$$

$$u^T = -u^T + 1$$

$$P_{\infty}^2 = 1$$

$$x^r = \frac{1}{x}$$

فقط $\frac{1}{\sqrt{2}}$ میسر $\rightarrow n = \frac{1}{\sqrt{2}}$

9

9

9

9

1, 2

9

10

$$a + aq^r = 18 \rightarrow a(1 + q^r) = 18$$

$$+ aq + aq^r = 12 \rightarrow aq(1 + q) = 12$$

$$(3a - 1)(q - 3) < \frac{1}{3} \rightarrow \frac{1}{3} > 1 \rightarrow (2)$$

$$\frac{1 + q^r - q}{q} = \frac{18}{12}$$

$$3 + 3q^r - 3q = 12q$$

$$\frac{a}{q} \times a \times aq^r = a^r = 12 \rightarrow a = 3 \rightarrow \frac{3}{a} + 3 + 3q = 12 \rightarrow \frac{3 + 3q + 3q^r}{q} = 12$$

$$12q = 3 + 3q + 3q^r \rightarrow 10q = 3q^r + 3 \rightarrow 3q^r - 10q + 3 = 0 \rightarrow q^r - 10q + 9 = 0$$

$$(q-1)(q-9) = 0$$

$$\frac{3}{1} = 3, 1, 1 \quad \left\{ \begin{array}{l} 1, 3, 9 \\ 3, 1, 1 \end{array} \right.$$

$$2, 4, 18$$

$$S_n = a_1 \left(\frac{q^n - 1}{q - 1} \right) \rightarrow S_{10} = 3 \times \left(\frac{3^{10} - 1}{3 - 1} \right) = 89048$$

انف

$$\sqrt{2 \times 89048} = 2 \times 89048$$

$$10^{th} \text{ term} = (a_1 \times a_{10})^{\omega} = (3 \times 3 \times 3^9)^{\omega} = 3^{\omega} \times 3^{\omega} \times 3^{\omega}$$

$$aq, aq^2, aq^3, aq^4$$

$$\left. \begin{array}{l} aq^r - aq = aq(q-1) \\ aq^r - aq^2 = aq^2(q-1) \\ aq^4 - aq^3 = aq^3(q-1) \end{array} \right\} \times q \rightarrow \text{نسبت}$$

الف) $a + a + d + a + r d + \dots + a + (n-1)d$

$$\underbrace{an + \frac{n^2 - n}{2} \times d}_{\text{مجموع د ها}} = \underbrace{an + \frac{n^2 d}{2}}_{\text{مجموع د ها}} - \frac{d}{2} \rightarrow = \frac{n}{2} (2a + (n-1)d)$$

ب) $a \left[\frac{q^n - 1}{a - 1} \right]$

$$a, aq, aq^2, aq^3, \dots, aq^{n-1} \rightarrow a + aq + aq^2 + \dots + aq^{n-1}$$

$$A = a + aq + aq^2 + \dots + aq^{n-1} \rightarrow Aq = aq + aq^2 + \dots + aq^n$$

$$\frac{A(q-1)}{aq^n - a} = A \frac{q^n - 1}{q - 1} = A$$