

تکلیف ۱۴

کلاس دوم و غیره

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$$a_n = \frac{1}{r} \times r^{n-1} \Rightarrow a_1 = a, q^{n-1} \Rightarrow a_n = \frac{1}{r} \times r^{n-1}$$

$$a_5 = a q^4 = \frac{1}{r} \times r^5 = r$$

$$a_{10} = \frac{1}{r} \times r^9 = \frac{1}{r} \times r^5 = 206$$

$$\sqrt[5]{4 \times 206} = 4$$

۱۲.

$$\frac{a_{10}}{a_5} = \frac{a_1 q^{14}}{a_1 q^4} = q^4 = r^4 = 17$$

$$a_1 q^{n-1} = 128 \Rightarrow \frac{1}{r} \times r^{n-1} = 128 \Rightarrow n = 9$$

$$\frac{a_n}{a_5} = r^5 = \frac{94}{15} \Rightarrow r = 2$$

$$a_{10} = a_n r^5 = 94 \times 32 = 3008$$

$$a_1 \times q = (a_2)^2 = 9 \quad (a_3)^2 = 4 \Rightarrow (a_2)^5 = 2 \Rightarrow a_2 = 2$$

$$r^{a+b} = (r^a r^b)^c \Rightarrow r^{a+b} = r^{ac} \Rightarrow a+b = ac$$

$$\frac{a+b}{c} = \frac{a}{c} + \frac{b}{c} = \frac{1}{c} \Rightarrow \frac{1}{c} = 1 \Rightarrow c = 1$$

$$1 - n, n, n+1 \Rightarrow (1-n)(n+1) = n^2$$

$$1 - n^2 = n^2 \Rightarrow 1 = 2n^2 \Rightarrow n = \pm \frac{1}{\sqrt{2}} = \pm \frac{\sqrt{2}}{2}$$

$$a_1 + a_1 r^2 = 28$$

$$a_1 r + a_1 r^3 = 12$$

$$\frac{a_1(1+r^2)}{a_1 r(1+r^2)} = \frac{28}{12}$$

$$\frac{a_1(1+r^2)(1-r+r^3)}{a_1 r(1+r^2)} = \frac{1}{r}$$

$$2 - 2r + 2r^3 = 12r \Rightarrow 2r^3 - 10r + 2 = 0$$

$$r^3 - 5r + 1 = 0 \Rightarrow r = \frac{1}{3} \text{ or } r = 4 \Rightarrow r = 4$$

$$\text{if } r = \frac{1}{3} \Rightarrow 25, 9, 3, 1$$

$$\text{if } r = 4 \Rightarrow 1, 4, 16, 64$$

$$a \sim r \vee r \sim a \Rightarrow a = r$$

CN

if $r = 1, 2, 9$

if $\frac{1}{r} \Rightarrow (9, 5, 1)$

۴ اکثر توہین تہذیبیہ ہم کو ہم اوردہ ہستند با فرد کمان ۲ آن را بنیدید
صفا لہ اربعہ ۳ من اینم دحل من اینم

$$S_n = \frac{a_1(q^n - 1)}{q - 1} \Rightarrow \frac{1 \times (1^6 - 1)}{(1 - 1)}$$

$$= 310 - 1 = 309 \text{ } \Rightarrow \text{ } \boxed{309}$$

$$a_{10} = r \times r^9, a_{12} \rightarrow (r \times r^9)^\omega = r \times r^{\infty}$$

$$L = (a_1 \times a_2)^{\frac{n}{r}}$$

$$a, a, a, a, a, a, \dots$$

۹۷ اُسے

$$a, q - a, a, q^r - a, q \text{ и } a, q^r - a, q^r, \dots$$

$$a(q-1), a_1 q(q-1), a_1 q^2(q-1), \dots$$

$$\frac{a, q(q-1)}{a(q-1)} = \frac{a, q^5(q-1)}{a, q(q-1)}$$

$$= q$$

$$t_n = \underbrace{a(q-1)}_{t_1} \times \underbrace{q^{n-1}}_{q^{n-1}}$$

کدو نشه د بېله وېر نه

$$+a_1, +a_2, \dots, +a_n$$

$$+a_n, +a_{n-1}, \dots, +a_1$$

$$n(a_1 + a_n)$$

$$\frac{n}{T} (a_1 + a_n)$$

$$\Rightarrow a_1 = a_1$$

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

$$\Rightarrow \frac{n}{r} (r a_1 + (n-1)d)$$

$$(a_1, a_1 q, a_1 q^2, \dots, a_1 q^{n-1}) \times d$$

$$\underbrace{a_1q + a_1q^r + \dots + a_1q^n}_{3n + a_1} = 3n + d$$

$$S_n - a_1 + a_1 q^n = S_n \times q \Rightarrow S_n (q-1) = a_1 (q^n - 1)$$

$$\Rightarrow f_n = \frac{a_1 (q^n - 1)}{q - 1}$$