

18170

نام و نام خانوادگی لسا رینا کریمی پاسخنامه تشریحی تکلیف شماره کلاس جمع

$$\frac{a}{d} + a + aq = 21 \Rightarrow \left(\frac{1}{q} + 1 + q \right) \cdot 21 \Rightarrow \frac{1}{q} + 1 + q = \frac{21}{4} \quad 1 + q + q^2 = \frac{21}{4} q$$

$$\frac{a}{q} \times a \times aq = 44 \Rightarrow a = 4$$

$$q^2 - \frac{17}{4}q + 1 = 0 \quad 4q^2 - 17q + 4 = 0 \quad q^2 - 17q + 19 = 0$$

$$(q-14)(q-1) = 0 \quad q = \frac{14}{4} = \frac{7}{2}$$

$$\boxed{q = \frac{7}{2}}$$

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$$(x^2 - 2)(x^2 + 4) = 4x^2$$

$$x^4 + 2x^2 - 8 = 4x^2$$

$$x^4 - 2x^2 - 8 = 0$$

$$(x^2 - 4)(x^2 + 2) = 0$$

$$x^2 = 4 \quad \boxed{x = \pm 2}$$

$$x^2 = -2 \quad \text{X}$$

$$1, 4, 2 \Rightarrow q = \frac{1}{4} \checkmark$$

$$1, -4, 2 \Rightarrow q = -\frac{1}{4} \text{ X} \quad \text{و } q < 0$$

$$S_n = a_1 \left(\frac{q^n - 1}{q - 1} \right) = 1 \left(\frac{1 - \left(\frac{1}{4}\right)^n}{1 - \frac{1}{4}} \right) = \frac{1 - \left(\frac{1}{4}\right)^n}{\frac{3}{4}} = \frac{4}{3} \left(1 - \left(\frac{1}{4}\right)^n \right)$$

$$\frac{128 - 1}{3} = \frac{127}{3}$$

$$128 + 128q + 128q^2 + 128q^3 + 128q^4 = \frac{128}{4} \times 128$$

$$\boxed{S_{\omega} = 128}$$

$$d = \frac{94 - 1}{9} = 10, \omega$$

$$q^4 = \frac{94}{1} \Rightarrow \boxed{q = 2}$$

$$1 + 3(1, \omega) = 3\omega$$

$$1 \times (2)^3 = 8$$

$$1 \times (-2)^3 = -8$$

$$3\omega + 8 = 9, \omega$$

$$3\omega - 8 = 24, \omega$$

$$d = \frac{1}{4}$$

$$q_{\text{total}} = -2^4 + \frac{2\omega}{\log 2} \times \frac{1}{4} = 1$$

$$\frac{2\omega}{\log 2} + \frac{q_4}{4} = \frac{1}{4}$$

$$128 \times q^4 = 1$$

$$q^4 = \frac{1}{128}$$

$$\boxed{q = \frac{1}{4}}$$

$\begin{matrix} a+rd & a+rd & a+rd \\ b_1 & b_r & b_n \end{matrix}$ $(a+rd)(a+rd) = (a+rd)^2$ $a^2 + 10ad + 10d^2 = a^2 + 20rd + 10d^2$ $10ad = 20rd$ $a = 2d$ $d = -\frac{a}{10}$	$1, 2, 5$
$\begin{matrix} a+d & a+rd & a+vd \\ b_1 & b_r & b_n \end{matrix}$ $(a+d)(a+vd) = (a+rd)^2$ $a^2 + 10ad + 10d^2 = a^2 + 20rd + 10d^2$ $10ad = 20rd$ $d = r$	5
$\begin{matrix} raq & raq^r & aq^r \end{matrix}$ $\frac{raq + aq^r}{r} = raq^r$ $raq + aq^r = r^2aq^r$ $r + q^r = r^2q$ $q^r - r^2q + r = 0 \Rightarrow (q-r)(q-1) = 0 \Rightarrow q = r$	5
$d = -\frac{1}{r}$ $a_1 = r - r \times \frac{1}{r} = \frac{\omega}{r} + n$ $a_2 = r - r \times \frac{1}{r} = \frac{1}{r} + n$ $a_3 = r - r \times \frac{1}{r} = -1 + n$ $b_1 = -\frac{1}{r} \quad b_r = -\frac{r}{r}$	5
$\begin{matrix} a & aq^r & aq^q \\ a & a+d & a+q+d \end{matrix}$ $a(a+q+d) = (a+d)^2$ $a^2 + 10ad + 10d^2 = a^2 + 20rd + 10d^2$ $10ad = 20rd$ $a = 2d$	$1, 2, 5$