

14 $\sqrt{(a_1 \cdot a_2)^3} \Rightarrow a_1^{\frac{3}{2}} a_2^{\frac{3}{2}} \Rightarrow a_1 a_2 \Rightarrow \frac{a}{q} \times a \times a q = 48 = a^3 \Rightarrow a = 4$ (1)

$\frac{8}{9} + 8q = 17 \Rightarrow 9 \times 8 = 72$ (2)
 $\frac{8}{9} + 4 + 4q = 21 \Rightarrow q = \frac{1}{4}$
 $a^4 + 2a^2 - 1 \leq 5a^2 \Rightarrow a^4 - 2a^2 - 1 \leq 0 \Rightarrow a = \pm 2$ (3)
 چون غیرمربعی از این فرم است.

$\sum_{k=1}^n \frac{1}{k^2} = \frac{\pi^2}{6}$ (4)
 $9 + 9^{\frac{1}{2}} + 9^{\frac{1}{3}} + 9^{\frac{1}{4}} = \frac{8}{21} \Rightarrow 9 \times \frac{1}{21}$ (5)
 $\sum_{k=1}^n \frac{1}{k^2} = \frac{\pi^2}{6}$

$2^y q^z = 9 = \pm 2 \Rightarrow A \leq a_2 \leq +1 \leq -1$ (6)
 $d \leq \frac{4}{5} \leq \frac{21}{7} \Rightarrow B \leq t \leq 5 \leq 2, 10$ (7)
 $\Rightarrow A+B \leq 6, 10 \leq 2, 10$

$d \leq \frac{1}{2} \Rightarrow a_{1,1} \leq 2 \leq 5 \leq 1$ (8)

$\Rightarrow t \leq 1, t \leq 2 \Rightarrow 9 \leq \frac{1}{2}$ (9)

$(a+2d)(a+4d) \leq (a+6d)^2 \Rightarrow a^2 + 10ad + 12d^2 \leq a^2 + 12ad + 36d^2$ (10)
 $-2ad - 24d^2 \leq 0 \Rightarrow a \leq 12d \Rightarrow d \leq 0, d \leq \frac{a}{12}$

$(a+d)(a+3d) \leq (a+5d)^2 \Rightarrow 2ad - 2d^2 \leq 0 \Rightarrow a \leq d$ (11)

$q \leq \frac{b_1}{b_2} \leq \frac{c_1}{c_2} \leq 2 \Rightarrow b_1 = \frac{1}{2} \times 2^9 \times 2^{\frac{1}{2}} \times 128$ (12)
 $aq (q^2 - q_2 + 3) =$
 $q_2 = 1, q_2 = 3$
 قابل غیرمربع است.

$caq + aq^2 = 48a \Rightarrow q \neq 0 \Rightarrow 4 \times 2 + 2 \times 8 = 24$ (13)

$a_1 \leq \frac{2}{3}, a_2 \leq \frac{1}{2}, a_3 \leq -1 \Rightarrow (a + \frac{2}{3})(n-1) \leq (n + \frac{1}{2})^2$ (14)
 $\Rightarrow \frac{-n}{2} - \frac{21}{12} \leq 0 \Rightarrow \frac{-21}{2}$ (15)
 $2a + 6d \leq 12$

$aq^2 = a + d \Rightarrow 1 + 9^{\frac{1}{2}} + 9^{\frac{1}{3}} \leq 12 \Rightarrow 9 \leq 2$ (16)
 $d = 0$

$q = 1 \Rightarrow 3a = 12 \Rightarrow a = \frac{12}{3}$
 $aq^3 - a = d \Rightarrow \frac{12}{3} - \frac{12}{3} = 0$