

دعوى B

البداية خاتمة

$$a - d, a, a + d \quad a + (a + d) = 21 \quad (a - d) \Rightarrow 15, 17, 19 \quad a = 17$$

$$a \times (a + d) = 64 \times (a - d) \Rightarrow a(a^2 - d^2) = 64$$

$$17d^2 = 64 - 289 \quad 17d^2 = 225 \quad d = \frac{15}{\sqrt{17}} \quad 3a + 2d = 21 \Rightarrow a + d = 7 \quad a(a + d)(a + 2d) = 64$$

$$a \times 17 \times (a + 2d) = 64 \quad a + d = 7 \quad d = 7 - a \Rightarrow a \times 17 \times (a + 2(7 - a)) = 64 \quad d + 17 \times (14 - d) = 64$$

$$98a - 17a^2 = 64 \quad 17a^2 - 98a + 64 = 0 \quad a + 17 + 17a = 21, 17 \quad a = \frac{17 \pm \sqrt{289 - 64}}{17} = \frac{17 \pm 15}{17}$$

$$\Rightarrow \boxed{a = 1} \quad a = \frac{1}{17} \quad \text{سرال نفقة غير ممكن است}$$

$$\frac{1}{17} \quad \frac{1}{17}$$

$$(2x)^2 = (x^2 + 1)(x^2 - 2) \quad 4x^2 = x^4 - 2x^2 + x^2 - 2 \Rightarrow 4x^2 = x^4 - x^2 - 2$$

$$x^4 - 5x^2 - 2 = 0 \quad y = x^2 \quad y^2 - 5y - 2 = 0 \quad y = \frac{5 \pm \sqrt{25 + 8}}{2} \quad y = \frac{5 \pm \sqrt{33}}{2} \quad x = \pm \sqrt{y}, x^2 = \frac{5 \pm \sqrt{33}}{2}$$

$$y = x^2 \geq 0 \Rightarrow x = 2 \quad a_1 = 1 + 1 = 2 \quad a_2 = 1 \quad a_3 = 2 \quad q = \frac{1}{2}$$

$$a_1 = 2 \quad a_2 = 1 \quad a_3 = 2 \quad q = \frac{1}{2} \quad x = -2 \quad S_n = a_1 \frac{1 - q^n}{1 - q} = 2 \times \frac{1 - (\frac{1}{2})^n}{1 - \frac{1}{2}} = \boxed{\frac{2(2^n - 1)}{1}}$$

$$-2 \quad \checkmark$$

$$\frac{1 - q^5}{1 - q} = \frac{121}{11} \quad 11(1 - q^5) = 121(1 - q) \quad 11 - 11q^5 = 121 - 121q \quad -11q^5 + 121q - 110 = 0$$

$$11q^5 - 121q + 110 = 0 \quad 1 + \frac{1}{q} + \frac{1}{q} + \frac{1}{q} + \frac{1}{q} \Rightarrow -a_1 = 243 - a_2 = 243 \times \frac{1}{q} = 11 \Rightarrow -a_2 = 11 \times \frac{1}{q} = 243$$

$$\Rightarrow 243 \times \frac{1}{q} = 11 \quad -a_2 = 11 \times \frac{1}{q} = 2 \quad S_n = a_1 \frac{1 - q^n}{1 - q} = 243 \times \frac{1 - \frac{1}{243}}{\frac{1}{243}} = \boxed{243}$$

$$2 \quad \checkmark$$

$$a_1 = 1 \quad a_2 = a_1 + 2d \quad 4d = 42 \quad a_2 = 44 \quad A = a_2 = a_1 + 2d = 1 + 2 \times \frac{1}{2} = 1 + 1 = 2 \quad \boxed{2, 1, 2}$$

$$a_2 = 1 \times q^2 \quad q^2 = 44 \quad B = a_2 = a_1 \times q^2 = 1 \times 44 = 44 = B$$

$$2, 1, 2 + 1 = \boxed{3, 1, 2} = A + B$$

$$2 \quad \checkmark$$

$$a_1 = -24 \quad a_2 = -\frac{96}{2} \quad d = a_2 - a_1 = -24 \quad a_{101} = a_1 + 100d = -24 + 100(-24) = -2424$$

$$a_{101} = C_n$$

$$C_n = 1 \quad C_1 = 121 \quad C_n = b_1 r^n = 121 r^n = 1 \quad r = (r^{-1})^{\frac{1}{n}} = r^{-1} = \boxed{\frac{1}{r}}$$

$$2 \quad \checkmark$$

$$a_n = a_1 + (n-1)d \quad (a_v)^2 = a_r \times a_9 \quad a_r = a_1 + 2d \quad a_v = a_1 + 4d$$

$$a_n = a_1 + 8d \quad (a_1 + 4d)^2 = (a_1 + 2d)(a_1 + 8d) \quad a_1^2 + 12a_1d + 32d^2$$

$$d_1^2 + 10a_1d + 16d^2 = a_1^2 + 12a_1d + 32d^2 \Rightarrow 2a_1d + 20d^2 = 0 \Rightarrow 2d(a_1 + 10d) = 0$$

$$\Rightarrow 2a_1d + 20d^2 = 0 \Rightarrow 2d(a_1 + 10d) = 0$$

$$a_1 + 10d = 0 \Rightarrow d = \frac{-a_1}{10} \quad d = 0 \quad \text{✓}$$

$$a_n = a_1 + (n-1)d \quad a_r = a_1 + d \quad a_9 = a_1 + 8d \quad a_n = a_1 + 10d \quad (a_9)^2 = a_r \times a_n$$

$$(a_1 + 8d)^2 = (a_1 + d)(a_1 + 10d) \quad a_1^2 + 16a_1d + 64d^2 = a_1^2 + 11a_1d + 10d^2$$

$$a_1^2 + 16a_1d + 64d^2 \Rightarrow -11a_1d + 54d^2 = 0 \quad d \neq 0 \quad d = a_1 \quad a_n = a_1 + (n-1)d = a_1 + (n-1)a_1$$

$$d_1 = na_1 \quad a_r = 2a_1 \quad a_9 = 9a_1 \quad b_1 = \frac{1}{x} \quad b_r = a_r = 2a_1 \quad b_9 = a_9 = 9a_1 \quad \frac{b_r}{b_1} = \frac{b_9}{b_r} = r$$

$$r = \frac{b_r}{b_1} = \frac{2a_1}{\frac{1}{x}} = 2ax \quad a_n = b_9 \quad a_1 = \frac{1}{x} \quad r = 2ax \quad b_n = b_1 \times r^{n-1}$$

$$b_{10} = \frac{1}{x} \times r^9 = \frac{1}{x} \times (2ax)^9 = 128a^9x^8 \quad b_{10} = 128a^9x^8 \quad \text{✓}$$

$$b_1, b_r = b_1, r \quad b_r = b_1, r^2 \quad 3b_r, 2b_r, b_9 \Rightarrow 2 \times (2b_r) = 3b_r + b_9$$

$$2 \times (2b_1r^2) = 3b_1r + b_1r^9 \quad 4r^2 = 3r + r^9 \quad r^9 - 4r^2 + 3r = 0 \Rightarrow r(r^8 - 4r + 3) = 0$$

$$\Rightarrow r = 0 \quad \text{or} \quad r = 3 \quad \text{or} \quad r = 1$$

✓
میں سوال لکھ دیا ہے
غیر ثابت اس

$$(1, 3)$$

$$d = a_r - a_1 = \frac{1}{x} - 2 = -\frac{1}{x} \quad a_n = 2 + (n-1) \times (-\frac{1}{x}) = 2 - \frac{n-1}{x} \quad a_9 = 2 - \frac{8}{x} = \frac{2x-8}{x}$$

$$d_n = 2 - \frac{1}{x} = \frac{2x-1}{x} \quad d_1r = 2 - \frac{1}{x} = -1 \quad \frac{dr}{d_1} = \frac{dr}{dr} = r \quad d_1 = a_9 + p = \frac{2x-8}{x} + p$$

$$(\frac{1}{x} + p)^2 = (\frac{2x-8}{x} + p) \times \dots \Rightarrow T_1 = a_1r + p - \frac{r^2}{x} = -1 - \frac{r^2}{x} = -\frac{2x}{x}$$

$$t_r = a_n + -\frac{r^2}{x} = \frac{1}{x} \Rightarrow -\frac{r^2}{x} = -\frac{2x}{x} = -2 \quad t_r = a_9 + (\frac{r^2}{x}) = \frac{2x-8}{x} + \frac{r^2}{x} = \frac{2x-8+r^2}{x} = \frac{-4}{x}$$

$$\frac{t_r}{T_1} = \frac{-4 \times x}{-2x} = \frac{2}{1} = 2 \quad \text{جواب آخر}$$

$$= 4, -4, -4, -4, -4$$

$$(1)$$

$$\frac{2x}{x} = 2$$

$$d = 0 \quad \text{جواب نہیں اس لئے}$$

$$(a+d)^2 = (a+9d)a \Rightarrow a^2 + d^2 + 2ad = a^2 + 9ad \Rightarrow d^2 = 7ad \Rightarrow d = 7a$$

$$a + a + d + a + 9d = 17 \Rightarrow 3a + 10d = 17 \Rightarrow 17a = 17 \Rightarrow a = 1, d = 7$$

$$(1, 7)$$