

14, 2

1, 2

دَعَا

$\leftarrow 1$

دنیالہ حسابی

①

$x_1 = 6$ (الف) $x_{10} = 42$

$$S_1 = \frac{10}{r} \times (1 + 4r) = 240 \checkmark$$

جواب لمفہم اخر...

ب) $z_1 = 34$ $z_{11} = 49$

$$S = \frac{F}{r} (r_1 + r_2) = \boxed{110}$$

①

$$a_{r0} - a_{r1} = (a_1 + r r d) - (a_1 + r r d) = r d$$

$$r_d = r(1 - \sqrt{r}) = \boxed{r - r\sqrt{r}} \quad \checkmark$$

$$b_{\mu} - b_r = b_r - b_1$$

$$y - r = r - x$$

$$y + z = r$$

$$ay = a^{r+1}$$

$$y = rx + 1$$

$$u_y = v \quad \checkmark$$

$$\begin{cases} y = r_{u+1} \\ y + u = f \end{cases} \Rightarrow \begin{cases} r_{u+1} + u = f \\ u = 1 \\ y = 3 \end{cases}$$

$$\frac{rx + r + yx}{r} = rx - 1 \quad z_1 = r\left(\frac{1}{r}\right) - r = -r$$

$$r_k + r = r_{k-1}$$

$$t_r = 0$$

$$\mathcal{L}_\mu = \mu$$

$$x = \frac{1}{r} \quad \checkmark$$

- 3, 0, 3, 4 ✓

$$a_n = 3, 5, 7, \dots, 2n+1 \quad a_{r_0} = 41 \quad c_n = 5, 11, 17, \dots, c_n = 4n-1$$

$$b_n = 2, 4, 6, \dots, 2n \quad b_{r_0} = 59 \quad 4n-1 < 41 \rightarrow n \leq 10$$

7 عدد مشترک

$$a_n = 3,$$

با معلوم داده و مورد داده
فرستی ولی باید مقدارش حساب میکردی نه

$$a_1 + a_2 + a_3 = a_1 + a_1 + d + a_1 + 2d = 3a_1 + 3d = 21$$

$$a_1 + d = 7$$

$$a_1 + a_3 + a_5 = a_1 + a_1 + 2d + a_1 + 4d = 3a_1 + 6d = 105$$

$$a_1 + 2d = 35$$

$$a_3 - a_2 + a_1 = a_1 + 2d - a_1 - d + a_1 = a_1 + d = 7$$

$$\begin{cases} a_1 + 2d = 35 \\ a_1 + d = 7 \end{cases} \Rightarrow d = 28 \quad a_1 = -21$$

$$\frac{a_3 - a_2 + a_1}{a_1} = -\frac{7}{21} = -\frac{1}{3} \quad \checkmark$$

$$a_1 + a_2 + a_3 = a_1 + (a_1 + d) + (a_1 + 2d) = 3a_1 + 3d = 15$$

$$a_1 + d = 5$$

$$a_4 + a_6 = a_1 + 3d + a_1 + 5d = 2a_1 + 8d = 45$$

$$\begin{cases} 2a_1 + 8d = 45 \\ a_1 + d = 5 \end{cases} \Rightarrow \begin{cases} 2a_1 + 8d = 45 \\ -2a_1 - 2d = -10 \end{cases} \Rightarrow d = 15 \quad a_1 = -5$$

$$a_{10} = a_1 + 9d = -5 + 9 \cdot 15 = 130$$

$$d = 15 \rightarrow d = 3 \quad a_1 = 2$$

$$d = 11/2 \quad 2a_1 = -22/4 \Rightarrow a_1 = -11/2$$

$$S_p = \frac{p}{2} (2a_1 + d) = pa_1 + \frac{p(p-1)}{2} d$$

$$S_q = \frac{q}{2} (2a_1 + d) = qa_1 + \frac{q(q-1)}{2} d$$

$$S_{r_0} = \frac{r_0}{2} (4d + 19d) = 11.5d$$

$$S_v = \frac{v}{2} (4d + 4d) = 4vd$$

$$\left[\frac{1}{p} (2a_1 + d) = 2a_1 + d \right] \times 2$$

$$\frac{S_{r_0}}{S_v} = \frac{11.5d}{4vd} = \frac{11.5}{4v}$$

$$2a_1 + d = 2a_1 + 2d \quad 2a_1 = 2d \quad a_1 = d$$

$$a_1 = 11 \quad a_v = 35$$

$$a_v = 11 + (v-1)d$$

$$24 = 1 + 4d$$

$$d = 6$$

$$4d = 24 \Rightarrow d = 6$$

$$b_1 = 28 \quad b_2 = 13 \quad \frac{13-28}{2+1} = \frac{-15}{3} = -5$$

$$b_4 = 28 + 3d = 28 - 15 = 13$$

$$28 - \frac{15}{2+1} = 13$$

$$n = 4 \Rightarrow \text{با استفاده از فرمول میسر}$$

۹ به صورت سوال توی بن!

$$\frac{a_{r_0}}{a_v} = ? \quad \text{دوماً}$$

$$S_9 = 9S_3 \quad \text{اولاً}$$

$$S_9 = 9S_3 \rightarrow \frac{9}{1} (2a_1 + 18d) = 9 \times \frac{3}{1} (2a_1 + 2d)$$

$$2a_1 = 2d \rightarrow \boxed{2a_1 = d}$$

$$\frac{a_{r_0}}{a_v} = \frac{a_1 + 19d}{a_1 + 9d} = \frac{29a_1}{13a_1} = \textcircled{3}$$

۲ب) جمله هشتم $a_{r_8}, a_{r_0}, a_{r_1}, a_{r_2}$

$$a_{r_8} + a_{r_2} = a_{r_0} + a_{r_4} \xrightarrow{\text{مجموع ۴ جمله}} 2(a_{r_0} + a_{r_4}) = 2(248) = \boxed{496}$$

$$a_{r_0} + a_{r_4} = a_1 + a_5 = 2a_1 + 59d = 248 \quad \uparrow$$