

$t_n = 5, 9, 13, 17, \dots$ $\begin{array}{c} \xrightarrow{+4} \xrightarrow{+4} \xrightarrow{+4} \end{array}$	$\xi_n + b \xrightarrow{n=1} \xi + b = 5 \rightarrow b = 1 \Rightarrow \xi_{n+1}$	الف)
$n=10 \rightarrow \xi \times 10 + 1 = \xi_1$		ب)
$t_n = 4, 10, 16, 22, \dots$ $\begin{array}{c} \xrightarrow{+6} \xrightarrow{+6} \xrightarrow{+6} \end{array}$ $a_n = \xi n + 2$	$\frac{10}{p} (c \times 9 + 9 \times \xi) = 5 \times (14 + 14)$ $= 5 \times 28 = 140$	الف)
$\rightarrow 2 (2 \times (\xi \times 9 + 2) + 3 \times \xi) = 2 \times 140 = 280$		ب)
$1 + \sqrt{3}, 2, 3 - \sqrt{3}, \dots$ $\begin{array}{c} \xrightarrow{+1-\sqrt{3}} \xrightarrow{+1-\sqrt{3}} \end{array}$ $a_{45} - a_{25} = a_{25} - a_1 = 2d \rightarrow 3 - \sqrt{3} - 1 - \sqrt{3} = 2(1 - \sqrt{3})$ $= 2 - 2\sqrt{3}$		الف)
$a_n = 5^{2n}, 3 \times 5^n, 5^y \rightarrow 5^{2n}, 3 \times 5^n, 5^y \rightarrow 5^y = 3 \times 5^{2n} + 3 \times 5^{2n}$ $= 5 \times 5^{2n} = 5^{2n+1}$ $b_n = u, 2, y$ $\frac{u+y}{2} = 2 \rightarrow u+y = 4 \rightarrow y = 4-u$ $2-u = 2n+1 \rightarrow u = 1$ $y = 3 \quad ky = 3$		الف)
$u = 5, 2u-1, 4u, \dots$ $\begin{array}{c} \xrightarrow{+3} \xrightarrow{+2u+1} \end{array}$ $\Rightarrow 2u+1 = 3 \rightarrow u = 1$	$u = \frac{1}{2} \rightarrow -3, 0, 3, \dots$ $a_n = 3n-4 \xrightarrow{n=2} 3 \times 2 - 4 = 2$	الف)

$$a_n = 2, 5, 7, \dots \rightarrow a_n = 2n+1 \xrightarrow{n=0} a_{p_1} = 1$$

$$b_n = 6, 10, 14, \dots \rightarrow a_n = 4n-1 \xrightarrow{n=0} a_{p_2} = -1$$

برای پیدا کردن فرمول جابجایی
مشترک باید از فرمولهای دنباله
را کم کنیم.

$$[2, 3] = 4 \rightarrow 5, 11, 17, \dots \rightarrow a_n = 6n-1 \rightarrow 4n-1 \leq 6n-1$$

$$\rightarrow n \leq 5 \rightarrow \boxed{\text{مجموعه ۶ تایی}}]$$

$$a_1 + a_p + a_{p_2} = c_1 \rightarrow a_p - d + a_p + a_{p_2} + d = c_1 \rightarrow a_p = 7$$

$$a_1 + a_p + a_{p_2} = 100 \rightarrow a_{p_2} - 2d + a_p + a_{p_2} + 2d = 100 \rightarrow a_{p_2} = 30$$

$$\frac{a_p - a_p + a_1}{a_1} = \frac{30 - 7 - 1}{-1} = -\frac{1}{3} \quad a_1 = 11 - 30 - 7 = -26$$

$$a_1 + a_p + a_{p_2} = 10 \rightarrow a_p - d + a_p + a_{p_2} + d = 10 \rightarrow a_{p_2} = 0$$

$$+ \rightarrow a_1 + a_p + a_{p_2} + a_{p_2} + a_{p_2} = 10$$

$$a_{p_2} + a_{p_2} = 10$$

$$\rightarrow a_p - 2d + a_{p_2} - d + a_{p_2} + d + a_{p_2} + d = 10$$

$$\rightarrow a_p = 1$$

$$a_{p_2} = 3 \times 10 - 1 = 29 \quad n=10$$

$$d = a_{p_2} - a_p = 1 - 0 = 1 \rightarrow a_n = 1n + b \xrightarrow{n=1} 0 = 1 + b \rightarrow b = -1 \rightarrow a_n = 1n - 1$$

$$S_a = 9S_p \rightarrow \frac{9}{x}(x a_1 + A d) = 9 \times \frac{w}{x}(x a_1 + x d)$$

$$\rightarrow 9a_1 + 39d = 9a_1 + 9d \rightarrow 11a_1 = 9d \rightarrow d = 11a_1$$

$$\frac{a_{p_2}}{a_v} = \frac{a_1 + 19d}{a_1 + 4d} = \frac{a_1 + 19(11a_1)}{a_1 + 4(11a_1)} = \frac{210a_1}{145a_1} = \frac{42}{29}$$

$$d_1 = \frac{30-11}{5-1} = 4 \rightarrow a_n = 5n + b \xrightarrow{n=1} 11 = 5 + b \rightarrow b = 6 \rightarrow a_n = 5n + 6$$

$$\xrightarrow{n=2} a_2 = 16 + 6 = 22$$

$$d = \frac{22-11}{2-1} = 11$$

$$-5 = \frac{13-31}{k+1} \rightarrow k+1 = \frac{-18}{-5} = \frac{18}{5} \rightarrow k = \frac{13}{5}$$