

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱۲ کلاس ۱۲	نام و نام خانوادگی: پاسخنامه تشریحی
$t_n = 5, 9, 13, 17, \dots$ $\begin{array}{c} \xrightarrow{+4} \quad \xrightarrow{+4} \quad \xrightarrow{+4} \end{array}$	(الف) $\epsilon_n + b \xrightarrow{n=1} \epsilon + b = 5 \rightarrow b = 1 \Rightarrow \underline{\epsilon_n + 1}$ ✓ (ب) $n=10 \rightarrow \epsilon \times 10 + 1 = \underline{51}$ ✓
$t_n = 4, 10, 16, 22, \dots$ $\begin{array}{c} \xrightarrow{+6} \quad \xrightarrow{+6} \quad \xrightarrow{+6} \end{array}$ $a_n = \epsilon_n + 2$	(الف) $\frac{10}{p} (c \times 9 + 9 \times \epsilon) = 5 \times (12 + 12)$ $= 5 \times 24 = \underline{120}$ ✓ (ب) $\rightarrow 2 (2 \times (\epsilon \times 9 + 2) + 3 \times \epsilon) = 2 \times 120 = \underline{240}$ ✓
$1 + \sqrt{3}, 2, 3 - \sqrt{3}, \dots$ $\begin{array}{c} \xrightarrow{+1-\sqrt{3}} \quad \xrightarrow{+1-\sqrt{3}} \end{array}$ $a_{45} - a_{25} = a_{30} - a_{10} = 2d \rightarrow 3 - \sqrt{3} - 1 - \sqrt{3} = 2(1 - \sqrt{3})$ $= 2 - 2\sqrt{3}$ ✓	(الف) $\rightarrow a_{45} - a_{25} = a_{30} - a_{10} = 2d \rightarrow 3 - \sqrt{3} - 1 - \sqrt{3} = 2(1 - \sqrt{3})$ $= 2 - 2\sqrt{3}$ ✓
$a_n = 5^{2n}, 3 \times 5^n, 5^y \rightarrow 5^{2n}, 3 \times 5^n, 5^y$ $b_n = u, v, y$	$\rightarrow 5^{2n} = 3 \times 5^n + 5^y \rightarrow 5^{2n} = 3 \times 5^n + 5^{r_n+1}$ $= 5 \times 5^{r_n} = 5^{r_n+1}$ $y = r_n + 1$ $5 - u = r_n + 1 \rightarrow u = 1$ $y = 3$ $ky = 12$ ✓
$t_n = 5, 2n-1, 4n, \dots$ $\begin{array}{c} \xrightarrow{+3} \quad \xrightarrow{+2n+1} \end{array}$ $\Rightarrow \epsilon_{n+1} = 3 \rightarrow u = \frac{1}{4}$ ✓	$n = \frac{1}{4} \rightarrow -3, 0, 3, \dots$ $a_n = 3n - 4 \xrightarrow{n=1} 3 \times 1 - 4 = \underline{-1}$ ✓

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

$$b_n = 1, 5, 9, \dots \rightarrow a_n = 4n-1 \xrightarrow{n=0} a_{p_2} = -1$$

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

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

$$\rightarrow n \leq 5 \rightarrow \boxed{\text{مشترک ۶}} \checkmark$$

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

$$a_1 + a_p + a_d = 100 \rightarrow a_p - 2d + a_p + a_p + d = 100 \rightarrow a_p = 30$$

$$\frac{a_p - a_p + a_1}{a_1} = \frac{30 - 7 - 1}{-21} = \boxed{-\frac{1}{3}} \checkmark$$

$$a_1 = 11 - 30 - 7 = -26$$

$$a_1 + a_p + a_w = 10 \Rightarrow a_p - d + a_p + a_e + d = 10 \rightarrow a_e = 0$$

$$+ \rightarrow a_1 + a_p + a_w + a_e + a_d = 10$$

$$a_e + a_d = 10$$

$$\rightarrow a_p - 2d + a_w - d + a_p + a_w + d + a_w + d = 10$$

$$\rightarrow a_p = 1$$

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

$$d = a_w - a_p = 1 - 0 = 1 \rightarrow a_n = 3n + b \xrightarrow{n=1} 1 = 3 + b \rightarrow b = -2 \rightarrow a_n = 3n - 2$$

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

$$\rightarrow 9a_1 + 39d = 9va_1 + 45d \rightarrow 11a_1 = 6d \rightarrow d = \frac{11}{6}a_1$$

$$\frac{a_p}{a_v} = \frac{a_1 + 19d}{a_1 + 4d} = \frac{a_1 + 19(\frac{11}{6}a_1)}{a_1 + 4(\frac{11}{6}a_1)} = \frac{39a_1}{13a_1} = \boxed{3} \checkmark$$

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

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

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

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

$$\rightarrow k = \frac{13}{5}$$