

نام و نام خانوادگی: ... پانصد و پنجاه و یکمین ... پاسنامه تشریحی تکلیف شماره ... ۱۲ کلاس ... A

الف) جمله عمومی: $t_n = 5, 9, 13, 17, \dots, 5 + (n-1) \times 4$ $\hookrightarrow (1n+1)$
 ب) $t_{10} = 10 \times 4 + 1 = 41$

$t_n = 4, 10, 16, 22, \dots$

$S_{10} = \frac{10}{2} (4 \times 1 + (10-1) \times 6) = 170$ (الف)

$t_n = 4n + 1 = 4 \times 29 + 1 = 117$

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$S_{29} = \frac{29}{2} (4 \times 117 + 28 \times 6) = 1709$ (ب)

$1 + \sqrt{3}, 1, 1 - \sqrt{3}, \dots$
 $\hookrightarrow 1 - \sqrt{3}, 1 - \sqrt{3}$

$t_{15} - t_{10} = 1d = 1(1 - \sqrt{3})$
 $= 1 - \sqrt{3}$

$t_{10} - t_{15} = -1d = -1 + \sqrt{3}$

$a_n = a^n, 3 \times 2a^n, a^y$

$b_n = n, 1, y$

$\begin{cases} a_{n+1} = y a^n = a \times 2a^n = a \times a^n = a^{n+1} \\ n+y = 3 \Rightarrow n+1+n+1 = 3 \Rightarrow n=1, y=2 \\ n+y = 3 \Rightarrow n+y = 3 \end{cases}$
 $\frac{n+y}{2} = 1 \Rightarrow ny = 2$

$a_n = 1n-1, 1n-1, 1n$
 $\hookrightarrow a_n = -1, 0, 1$

$\frac{1n+1n-1}{2} = 1n-1$

$a_2 = (1 \times 1) + (-1) = 0$

$1n-1 = 1n-1 \Rightarrow n=1$
 $1n=1$

$$ch = 4n + d$$

$$ch = 11, 14, 17, \dots$$

$$d = 3 \text{ مقرر كذا } N, M = 4$$

$$4n + d \leq 11 \Rightarrow n \leq 4$$

$$bn = 1, 2, 3, 4, \dots, \alpha_n = 1, 2, 3, 4, \dots$$

$$b_n = 11n - 1$$

$$\alpha_n = 11n + 1$$

$$b_{10} = 11 \times 10 - 1 = 109$$

$$\alpha_{10} = 11 \times 10 + 1 = 111$$

مقرر كذا 4

$$\alpha_p - \alpha_r + \alpha_s = 6$$

$$\alpha_1 + \alpha_p + \alpha_s = 10$$

$$\alpha_1 + \alpha_p + \alpha_s = 11$$

$$\alpha_p - \alpha_r + \alpha_s = 6$$

$$11 - 10 = 1$$

$$\alpha_1 + \alpha_p + \alpha_s - \alpha_1 - \alpha_p - \alpha_s = 1 - 0 = 1$$

$$\alpha_1 + \alpha_p + \alpha_s = 11 \alpha_1 + 11d = 11 \Rightarrow \alpha_p - \alpha_s = -11d = -11 \Rightarrow d = 1$$

$$\Rightarrow 11\alpha_1 = 11 - 11d = 0 \Rightarrow \alpha_1 = 0$$

$$\frac{11}{-11} = -1$$

$$\alpha_1 + \alpha_p + \alpha_s = 10$$

$$\alpha_p + \alpha_s = 10$$

$$\Rightarrow 11\alpha_1 + 11d = 10$$

$$11\alpha_1 + 11d = 11$$

$$\begin{cases} -11\alpha_1 - 11d = -10 \\ 11\alpha_1 + 11d = 11 \end{cases} \Rightarrow d = 1$$

$$\alpha_1 = \frac{11 - 11d}{11} = 0$$

$$S_a = 9S_p$$

$$\frac{\alpha_{10}}{\alpha_1} = \frac{\alpha_1 + 19d}{\alpha_1 + d} = 10$$

$$\Rightarrow \frac{9}{11} \frac{(11\alpha_1 + 11d)}{\alpha_1 + d} = 9 \times \frac{11}{11} \frac{(11\alpha_1 + 11d)}{\alpha_1 + d}$$

$$9\alpha_1 + 9d = 11\alpha_1 + 11d$$

$$\Rightarrow 11d - 9d = 11\alpha_1 - 9\alpha_1$$

$$\Rightarrow 2d = 2\alpha_1$$

$$\Rightarrow d = \alpha_1$$

$$\alpha_1 - \alpha_1 = 0 \Rightarrow d = 1$$

$$11 - 11$$

$$\alpha_p = 11 + 11 \times 1 = 22$$

$$\frac{11}{11} \times 11 + 11 = 22$$

$$\Rightarrow \frac{11}{11} = 1$$

$$\Rightarrow \frac{11}{11} = 1$$

$$\Rightarrow \frac{11}{11} = 1$$

$$11n = 11 \Rightarrow n = 1$$