

نام و نام خانوادگی پوش اخوان پاسخنامه تشریحی تکلیف شماره ۱۲ ... کلاس ... دوم ... پیر ... B

الف) $a_n = 4n + 1$ ✓ / $a_n = 8 + (n-1)4$

ب) $2 \times 10 + 1 = 21 \rightarrow a_{10}$ ✓ (۲)

الف) $S_1 = 8(2 \times 4 + 4 \times 4) = 24$ ✓

ب) $a_{14} + a_{13} + a_{11} + a_{12} = S_4 = 4(2a_{14} + (n-1)4) \left\{ a_{14} = 2 \times 4 + 11 \times 4 \right\}$
 $\Rightarrow S_4 = 4(2 \times 118 + 3 \times 4) = 992$ ✓ (۲)

$a_{18} - a_{12} = a_3 - a_1$

$\Rightarrow a_{18} - a_{12} = 3 - \sqrt{3} - (1 + \sqrt{3}) = \frac{2 - 2\sqrt{3}}{1}$ ✓ (۲)

$a_n = \frac{8^{2n} + 8^y}{2} = 8^n \cdot 8^{2n} \Rightarrow 8^{2n} + 8^y = 4 \times 8^{2n}$

$8^y = 4 \times 8^{2n} - 8^{2n} \Rightarrow 8^y = 3 \times 8^{2n} \Rightarrow 8^y = 8^{2n+1}$ (۲)

$b_n = 2, 7, y \rightarrow \frac{n+y}{2} = 2 \Rightarrow n+y = 4 \Rightarrow y = 4-n$

$\Rightarrow 2n+1 = 4-n \Rightarrow 3n = 3 \Rightarrow n = 1$ $y = 4-n \Rightarrow y = 3$ $ny = 1 \times 3 = 3$ ✓

$\frac{4n + 2n - 4}{2} = 2n - 1 \Rightarrow 3n - 2 = 2n - 1$

$\Rightarrow 3n = 2 \Rightarrow n = \frac{1}{3}$ (۲)

$2(\frac{1}{3}) - 4, 2(\frac{1}{3}) - 1, 4(\frac{1}{3}), 4(\frac{1}{3}) + 2 \rightarrow -\frac{10}{3}, 0, \frac{4}{3}, \frac{8}{3}, \dots$
 $\frac{+3}{+3} \quad \frac{+3}{+3} \quad \frac{+3}{+3} \quad \frac{+3}{+3} \rightarrow \boxed{a_4 = 4}$ ✓

شترن $\rightarrow 8, 11, 17, 22, \dots$ $a_r = 2 \times r + 1 = 51$ $b_r = 3 \times r - 1 = 59$ $\Rightarrow \frac{51-8}{4} + 1 = 11$	✓ جد شترن دارند ۶
$a_1 + a_r + a_r = 11 \Rightarrow a_1 + a_r = 2a_r = 2a_r = 11$ $\Rightarrow a_r = 11$ $a_1 + a_r + a_r = 10$ $a_1 + a_r = 2a_r \Rightarrow 2a_r = 10 \Rightarrow a_r = 5$ $8 + 11 + a_1 = 11 \Rightarrow a_1 = -8$	۷ $\frac{11-11}{-11} = \frac{11}{-11}$ $\left(-\frac{1}{11}\right)$
$a_1 + a_r + a_r = 10, a_1 + a_r = 2a_r \Rightarrow 2a_r = 10 \Rightarrow a_r = 5$ $a_1 + a_r + a_r + a_r + a_r = 10 + 5 = 15, a_1 + a_r = 2a_r / a_r + a_r = 2a_r$ $\Rightarrow 15 = 2a_r \Rightarrow a_r = 7.5$ $8 + 7.5 + a_1 = 10 \Rightarrow a_1 = -5.5$ $\Rightarrow a_1 = 1 + 3 \times 9 = 28$	۸ ۲
$S_1 = 9S_r \Rightarrow \frac{9}{r} (a_1 + 11d) = \frac{9 \times r}{r} (2a_1 + 11d)$ $\Rightarrow 9a_1 + 99d = 18a_1 + 99d$ $\Rightarrow 9d = 11a_1$ $\frac{a_r}{a_v} = \frac{a_1 + 11d}{a_1 + 9d} = \frac{a_1 + 11 \times \frac{11a_1}{9}}{a_1 + 11a_1} = \frac{122a_1}{22a_1} = \frac{11}{2}$	۹ ۲
$a_1 = 11, a_v = 11 \Rightarrow a_r = \frac{11+11}{2} = 11 \Rightarrow d = 0$ $a_1' = 11 \Rightarrow a_1' + 11d' = 11$ $11 + 11d' = 11 \Rightarrow d' = 0$ $\frac{b-a}{k+1} = d, \frac{11-11}{k+1} = 0 \Rightarrow k = 0$	۱۰ ۲