

۱۷,۵

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱۰۰... کلاس ۱۵A	(الف) $d=4 \rightarrow a_n = a_1 + (n-1)d$ a_{n+1} ✓ (ب) $4 \times 10 + 1 = 41$ $a_1 + (10-1) \times 4 = 41$ ✓	(الف) $4, 10, 14, 18, \dots \rightarrow a_n + 2 + 10 = 40 + 2$ (ب) $S_n = \frac{n}{2}(a_1 + a_n) \rightarrow \frac{10}{2}(4 + 42) \rightarrow a_1 \times 48 = 240$ ✓ $4 \times 1 \rightarrow 16 \times 5 \rightarrow 12 \times 9 \rightarrow 12 \times 13$ $130 \rightarrow 118$ $20 \times 17 \rightarrow 24 \times 21 \rightarrow 28 \times 25 \rightarrow 32 \times 29 \rightarrow 36 \times 33$ $\frac{1}{2}(130 + 118) = 124$ ✓	(الف) $1 + \sqrt{3}, 2, 3 - \sqrt{3}, \dots$ $+ 1 - \sqrt{3} + 1 - \sqrt{3}$ (ب) $a_{2n} - a_{2n-1} \rightarrow a_1 + 2nd - (a_1 + 2(n-1)d) \rightarrow 2d = 2 - 2\sqrt{3}$ ✓	$a_n = a_1 r^{n-1}, a_1 r^{n-2} \times r, a_1 r^{n-3} \times r^2, \dots$ $d = 2 + 2r^{2n}$ $a_1 = a_1 r^{2n} \rightarrow a_1 = a_1 r^{2n}$ $y = 4x$ $b_n = x, y \rightarrow x+y = 4$ $x+y \Rightarrow x+y = 4$ $x=y \rightarrow \frac{x}{1} = \frac{y}{1} = \frac{4}{2} = 2$ $x=2, y=2$ $n=1 \rightarrow ny=3$ $y=3$	$2x-4, 2x-1, 4x, \dots \rightarrow d \rightarrow 4x+1 = 2$ $4x=1 \rightarrow x=1/4$ ✓ $2x \times \frac{1}{4} = 1/2$ $2x \times \frac{1}{4} - 1 = -3/2$ $4x \times \frac{1}{4} = 1$ $4x \times \frac{1}{4} - 1 = 0$ $d=3$ ✓
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واحد صدها: $\frac{a^n + a^y}{2} = 3 \times 2a^n - a^n + a^y = 4 \times a^n$

$a^y = a \times a^n = a^{n+1} \rightarrow y = n+1$ (۲)

$$a_n = 2, 4, 6, \dots \quad d=2$$

$$2r = 4$$

$$b_n = 2, 4, 6, \dots \quad d=2$$

$$4n-1 \leq 41$$

$$4n \leq 42$$

$$n \leq 10.5$$

$$2, 4, 6, \dots, 40 \rightarrow 20 \text{ terms}$$

(2)

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$$a_1 + a_2 + a_3 = 21 \quad 3a_2 = 21 \quad a_2 = 7$$

$$a_1 + a_2 + a_3 = 20 \rightarrow 3a_2 = 20 \rightarrow a_2 = \frac{20}{3}$$

$$a_3 - a_2 + a_1 = 7 \quad \frac{20}{3} - 7 + a_1 = 7 \quad a_1 = 7 - \frac{20}{3} + 7 = \frac{24}{3} - \frac{20}{3} = \frac{4}{3}$$

$$7 - \frac{4}{3} - 7 = -\frac{4}{3} \rightarrow \text{سوال نیت این رو به } a_1 \text{ مر خواد!}$$

$$a_1 = -21$$

$$a_2 = 7$$

$$a_3 = 20$$

(1, 7, 20)

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به صورت سوال طاعت این

$$a_1 + a_2 + a_3 = 14 \rightarrow 3a_2 = 14 \quad a_2 = \frac{14}{3}$$

$$a_4 + a_5 + a_6 = 20 \rightarrow 3a_5 = 20 \quad a_5 = \frac{20}{3}$$

سوال لغت 2 جمله بعدی نه 3 جمله!

$$9d = 10$$

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

$$a_{10} = a_2 + 8d \rightarrow 2 + 8 \times \left(\frac{10}{9}\right)$$

$$a_{10} = 2 + 9(3) = 29$$

$$a_{10} = \frac{40}{9} + \frac{10}{9} = \frac{50}{9}$$

(1)

1

$$S_9 = \frac{9}{2} (a_1 + a_9) = 9 \left(\frac{2}{2} (a_1 + a_9) \right)$$

$$\frac{9}{2} (a_1 + a_9) = \frac{9}{2} (a_1 + a_9)$$

$$9a + 36d = 27(a + d) \quad d = 2a \rightarrow a = \frac{d}{2}$$

$$\frac{a_{10}}{a_5} = \frac{a_1 + 9d}{a_1 + 4d} \rightarrow \frac{\frac{d}{2} + 9d}{\frac{d}{2} + 4d} = 3$$

$$a_1 = 11 \quad a_5 = 27$$

$$d = 4$$

$$a_n + 4 \rightarrow a_5 = 27$$

$$a_1 = 11$$

$$a_5 = 27$$

$$d = \frac{27-11}{4} = 4$$

$$-d = \frac{1-27}{n+1} = -4$$

$$n+1 = 6 \quad n = 5$$

(2)

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