

نام و نام خانوادگی: پاسخنامه تشریحی تکلیف شماره ۱۲ کلاس:
پایه:
نام و نام خانوادگی:
پایه:

الف

$$t_n = 4, 9, 14, 19, \dots \quad t_n = 5n + 1$$

ب

$$t_{10} = 5 \times 10 + 1 = 51$$

الف

$$t_n = 6, 10, 14, 18 \quad S_n = \frac{n}{2} (a_1 + a_n) \Rightarrow \frac{10}{2} (6 + 18) = 120$$

ب

$$t_n = 5n + 2 \Rightarrow 10 + 2 = 12$$

منظور این است که باید مجموع $t_{19}, t_{20}, t_{21}, t_{22}$ را بیابیم

$$t_{19} = 5 \times 19 + 2 = 97, \quad t_{22} = 5 \times 22 + 2 = 112$$

$$S_4 = \frac{4}{2} (97 + 112) = 400$$

$$1 + \sqrt{3}, 2, 3 - \sqrt{3}, \dots$$

$$t_{12}, t_{13}, t_{14}$$

$$t_{14} - t_{12} = 2d$$

$$2(1 - \sqrt{3}) = 2 - 2\sqrt{3}$$

$$a_n = 1, 2, 3, 4, 5, \dots \Rightarrow a_n = n$$

$$b_n = 1, 2, 3, 4, 5, \dots$$

$$\frac{1+2}{2} = 1.5 \Rightarrow \frac{1+2}{2} = 1.5$$

$$a_n = 1, 2, 3, 4, 5, \dots \Rightarrow a_n = n$$

$$1 + 2 = 3$$

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$$\begin{cases} x + y = 1 \\ 2x + y = -1 \end{cases}$$

$$x = 2, y = -1$$

$$2x - 1, 2x - 1, 2x - 1, \dots$$

$$2x - 1 + 2 = 2x + 1 \Rightarrow 2 = 2x + 1 \Rightarrow x = \frac{1}{2}$$

$$-2, 0, 2, 4, \dots$$

$$t_4 = 2 \times 4 - 2 = 6$$

$$t_n = 2n - 2$$

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$a_n = r_n \oplus \sqrt{r_n} \oplus 11$ $a_n = r_n + 1 \rightarrow r_n \cdot |a_n| = |51|$
 $b_n = r_n \oplus \sqrt{r_n} \oplus 11$ $a_n = r_n - 1 \rightarrow r_n \cdot |a_n| = |59|$
 $d = 11 \Rightarrow 9$ $t_n = 9n - 1$
 $9n - 1 \leq 51 \rightarrow 9n \leq 52 \rightarrow n \leq 5$
 $9n - 1 \leq 59 \rightarrow 9n \leq 60 \rightarrow n \leq 6$

$a_1 \oplus a_2 \oplus a_3 = 11$ $a_1 \oplus a_2 \oplus a_3 = 10$
 $a_1 \oplus a_2 \oplus a_3 = 11$ $a_1 \oplus a_2 \oplus a_3 = 10$
 $\Rightarrow 9 = r_{a_1} = 11$ $\Rightarrow 9 = r_{a_2} = 10$
 $a_1 = 11$ $a_2 = 10$
 $d = \frac{r_{a_1} - r_{a_2}}{r_{a_1} - r_{a_2}} = \frac{11 - 10}{11 - 10} = 1$ $a_1 = a_2 - d = 10 - 1 = 9$
 $\rightarrow a_1 - a_2 + a_3 = 10 - 10 + 11 = 1$

$a_1 \oplus a_2 \oplus a_3 = 10$ $a_1 \oplus a_2 = 10$
 $r_{a_1} + r_d = 10$ $r_{a_1} + r_d = 10$
 $\Rightarrow a_1 \oplus d = 10 \Rightarrow r_{a_1} \oplus r_d = 10$
 $a_1 = a_1 \oplus d \Rightarrow r_{a_1} \oplus r_d = 10$

$9 = 9 \cdot 1 \Rightarrow \frac{9}{1} (a_1 \oplus a_2) = 9 \cdot \frac{r_{a_1}}{r_{a_2}} \cdot (a_1 \oplus a_2) \Rightarrow \frac{9}{1} a_1 \oplus \frac{9}{1} a_2 = \frac{r_{a_1}}{r_{a_2}} a_1 \oplus \frac{r_{a_1}}{r_{a_2}} a_2$
 $\Rightarrow \frac{9}{1} a_1 \oplus \frac{r_{a_1}}{r_{a_2}} a_2 = 9 a_1 \Rightarrow \frac{1}{1} a_2 \oplus \frac{r_{a_1}}{r_{a_2}} a_2 = a_1 \Rightarrow \frac{1}{1} (a_1 \oplus d) - \frac{r_{a_1}}{r_{a_2}} (a_1 \oplus d) = a_1$
 $\frac{1}{1} a_1 \oplus r_d - \frac{r_{a_1}}{r_{a_2}} a_1 - r_d = a_1 \rightarrow r_{a_1} = d \Rightarrow a_1 = \frac{d}{r_{a_1}} = \frac{a_1 \oplus d}{a_1 \oplus d} = \frac{r_{a_1} \oplus d}{r_{a_1} \oplus d}$

$a_1 = 11$ $a_2 = 10$ $r_{a_1} = 11$ $r_{a_2} = 10$
 $a_1 \oplus d = 10$
 $b_1 = 11$ $b_n = 10$
 $b_f = a_f = 10$
 $\Rightarrow n+1 = 0$ $n = 9$