

۱۹، ۵ و ۱۲

۱۲ سه شنبه
۵ مرداد

$t_n = 0, 4, 12, 20, \dots$
 $(1), (2), (3), (4), \dots$

$d = 4$

مسئله اول ۳

الف) $a_n = a_1 + (n-1)d \rightarrow a_n = 0 + (n-1)(4) \rightarrow 0 + 4n - 4 \rightarrow 4n - 4$

$4n - 4$

ب) $n=1 \rightarrow 4n - 4 \rightarrow 4(1) - 4 = 0$

$t_n = 4, 12, 20, \dots$

مسئله دوم

$d = 1 - 4 = -3 \rightarrow a_n = 4 + (n-1)(-3) = 4 - 3n + 3 = 7 - 3n$

الف) $4 + 1 + 12 + 11 + 20 + 17 + 28 + 25 + 39 + 36 \rightarrow 240$

ب) $a_n = a_1 + (n-1)d$ جمله nام

$S_n = \frac{(a_1 + a_n) \times n}{2}$ مجموع n جمله اول

مجموع جمله ۱۱ام: ۲۹، ۲۱، ۱۰، ۳۲، ۳۱، ۳۰

$t_1 + 18d + t_2 + 17d + t_3 + 16d + t_4 + 15d$

$5t + 111d = (5 \times 4) + (5 \times 111) = 20 + 555 = 575$

$118 + 122 + 126 + 130 + 134 = 628$

مسئله ۱۰

$$d = 1\sqrt{3}$$

$$t_1 = 1 + \sqrt{3} \rightarrow t_{23} - t_{23} = t_1 \sqrt{3} d - t_1 \sqrt{3} d$$

$$\rightarrow \sqrt{3} d (1 - \sqrt{3}) \rightarrow \sqrt{3} d \sqrt{3}$$

$$a_{10} = \sqrt{3} (10) = 10\sqrt{3}$$

$$a_{10} = 10\sqrt{3} \rightarrow 10\sqrt{3} = (10\sqrt{3}) \rightarrow 10\sqrt{3} = 10\sqrt{3}$$

$$y_0 = 10\sqrt{3}$$

$$a_n = 0, y_0, y_0, y_0, y_0$$

$$b_n = a_n y_0$$

$$a_n = \frac{y_0}{y_0} = \frac{y_0}{y_0} \rightarrow y_0 = y_0$$

$$y_0 = y_0 \rightarrow y_0 = y_0$$

$$b_n = a_n y_0 \rightarrow y_0 = y_0 \rightarrow y_0 = y_0$$

$$y_0 = 10\sqrt{3}$$

$$y_0 = 10\sqrt{3}$$

سوال هفتم: $a_1 + a_2 + a_3 = 11 \rightarrow 3a_2 = 11 \rightarrow a_2 = \frac{11}{3}$

$a_1 + a_2 + a_3 = 11 \rightarrow \frac{a_1 + a_2 + a_3}{3} = \frac{11}{3}$

$a_2 = a_1 + d = 11 + 11 = 22$

$a_2 = 11, a_1 = 11 - 11 = 0$

$a_2 - a_1 + a = 11 \rightarrow 11 - 0 + 11 = 22$

$a_2 - a_1 = 11 - 0 = 11$

سوال هشتم: $a_1 + a_2 + a_3 = 11 \rightarrow 3a_2 = 11 \rightarrow a_2 = \frac{11}{3}$

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19 $a_1 + r = a \rightarrow a_1 = r$

$a_n = a_1 + (n-1)d$

$a_1 = a_1 + 9d$

$a_1 = r + 9d \rightarrow a_1 = r$

مطلوب

$\frac{r}{q} \left(\frac{q}{r} (a_1 + a_n) \right) = \frac{r}{q} (a_1 + a_n)$

$a_1 + a_1 \rightarrow r + r$

$a_1 + a_1 + 1d = r + r + 1d$

$r d = r a$

$d = r a \rightarrow \frac{dr}{av} = \frac{a_1 r d}{a_1 + 4d} = \frac{r q a}{13a}$

$a_1 = 11 \rightarrow a_1 + 4d = r + 4d \rightarrow d = r$

$a_f = a_1 + r d \rightarrow 11 + r = r$

$a_1 + a_r =$

$a_1 + a_r =$

$a_r = a_r$

$a_r = r, 0$

$a_r =$

$\frac{1}{r}$

$a_r a_r$

$a_r =$

$a_1 + r$

$r a_1 =$

$r(a - d)$

$$a_1 = 11$$

$$a_n = 11$$

$$a_n = a_1 + (n-1)d \rightarrow 11 = 11 + (n-1)d$$

$$d = 0$$

$$11 = 11 - \omega(n-1) \rightarrow 11 = 11 - \omega(n-1)$$

$$11 = 11 - \omega(n-1)$$

$$-\omega(n-1) = 0$$

$$\text{از } 11 = 11 - \omega(n-1)$$

$$(n=4)$$

$$\frac{11 - 11}{n+1} = -\Delta \rightarrow \boxed{n=4}$$