

$$\left. \begin{array}{l} a_1 = 4 \\ a_1 + r d = 91 \end{array} \right\} \Rightarrow d = \frac{91 - 4}{r} = 7$$

$$t_n = V_n + r r \Rightarrow 7 \cdot n = V_n + r r \Rightarrow V_n = 170 \Rightarrow n = 28$$

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$$a_n = V_n + r, 91 < V_n + r < 1000 \Rightarrow 94 < V_n < 997 \Rightarrow 94 < V_n < 997 \Rightarrow n: 15, 16, \dots, 122$$

$$\Rightarrow \boxed{129 \text{ عدد دارد}}$$

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$$r a_n + d = -4n + 12 \Rightarrow \left\{ \begin{array}{l} a = -4 \\ d = 7 \end{array} \right\} \Rightarrow t_n = -4n + 7$$

$$a_{20} - a_7 = -4 \rightarrow d = -4$$

$$a_1 = 4$$

$$t_n = a_n + d \Rightarrow a_{n+1} + a_{n+2} + a_{n+3} = r a_n + r d$$

$$\left. \begin{array}{l} a_{14} = -28 \\ a_{18} = -12 \end{array} \right\} \Rightarrow a_{14} + a_{18} = -40$$

$$a_{14} + a_{18} = 14a_1 + 14d = 4(4) + 14(-4) = -44$$

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$$\left. \begin{array}{l} t_r = a + r d = 7^r - 1 \\ t_n = a_1 + r d = 7^{n+1} \\ t_r = a + r d = 7^{n+1} - 7 \end{array} \right\} \Rightarrow t_r + t_r = t_n - t_n$$

$$S = 13 + 18 + 13 = 44$$

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$$7^a + 7^b = 7^{a+b} \Rightarrow 7^a + 7^b - 7^{a+b} = 7$$

$$7^a(7^b - 7) = 7 \Rightarrow 7^a = 2 \Rightarrow 98 = 7$$

$$a_{12} - a_1 = 7d = 8 \Rightarrow d = 1, 8$$

$$a_{12} + a_1 = 12a + 12d = 70 \Rightarrow 12a = -17, 8 \Rightarrow a = -1, 5$$

$$a_{12} = a + 12d = -1, 5 + 12 \cdot 1, 8 = 21, 8$$

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$$\underbrace{1 \cdot a = da}_{\downarrow} \Rightarrow d = ra \Rightarrow \frac{ar}{a_1} = \frac{a+ra}{a} = \textcircled{r}$$

$$r(da+1) \neq (da+rda)$$

$$\Rightarrow (da+r \cdot d = da+rda) \Rightarrow \boxed{1 \cdot a = da}$$

$\textcircled{r}$

$$a+rd = a+1d \Rightarrow rd = 1d \Rightarrow d = \textcircled{d}$$

$\textcircled{r}$

$$(t_9)^r = t_0^r = (a+nd)^r - (a+ed)^r = a^r + rrd + r^2ad - a^r - r^2d^r - r^2ad$$

$$\Rightarrow rrd + r^2ad = r^2a(rd+d) \Rightarrow \frac{r^2ad + r^2ad}{a+rd} = \frac{r^2 \cdot (r+a)}{r+a} = \textcircled{r}$$

$$e_{r,d} = \frac{r+\sqrt{r} - r + 1/\sqrt{r}}{1/r} = \sqrt{r}$$

$\textcircled{r}$

$$d = \frac{b-a}{r_{n-r}} = \frac{r_0}{r_{n-r}}$$

$$t_{n+1} = t_1 + (n)d \Rightarrow nd = 9$$

$$nd = \frac{r \cdot n}{r_{n-r}} = 9$$

$$r_{n-r} = r_{n-1} \Rightarrow r_n = 1 \Rightarrow n = \textcircled{r}$$

$$r, 1, r$$

$\textcircled{r}$

$$a_n + a_{n+2} = a_r + a_{1/r} \Rightarrow a + (n-1)d + a + (n+r)d = a + rda + 1da$$

$$\Rightarrow a + nd - d + a + nd + rd = a + rd + a + 1da$$

$$ra + (r+1)d = ra + 1nd \Rightarrow (r+1)d = 1nd \Rightarrow r+1 = 1 \Rightarrow r = 1 \Rightarrow n = \textcircled{r}$$

$\textcircled{1,0}$

$$at \Rightarrow a_1 + (t-1)d \rightarrow -d + td - d = \dots$$

$$td = rd \quad d \neq 0 \rightarrow \boxed{t=r}$$