

$$a_1 = 1, \quad a_n = a_1 + (n-1)d = 91 \rightarrow 3d = 90 \rightarrow d = 30 \quad \text{و نیز } a_n = Vn + 1 = 91 \rightarrow n = 30 \quad (1)$$

$$a_1 = 1, \quad a_n = 99 \rightarrow 1, 10, 11, 12, \dots, 99 \rightarrow \dots \rightarrow 99 - 1 = 98 \rightarrow \frac{99 - 1}{1} + 1 = 100 \quad (2)$$

$$a_1 + d, a_1 + 2d, \dots, a_1 + nd \rightarrow a_1 + d = 1 + d = 10 \rightarrow d = 9 \rightarrow a_n = 1 + (n-1)9 = 91 \rightarrow n = 10 \quad (3)$$

$$a_1 - a_2 = a_3 - a_4 \rightarrow (1) - (10) = (27) - (36) \rightarrow 1 - 10 = 27 - 36 \rightarrow -9 = -9 \quad (4)$$

$$2r = 10 \rightarrow a_n = 1 \rightarrow a_{10} = 10 \rightarrow 10 + 1 + 10 = 21 \quad (5)$$

$$1 + 9d - (a_1 + 11d) = 0 \rightarrow 9d = 0 \rightarrow d = 0 \rightarrow a_{11} = a_1 + 10d = 1 \quad (6)$$

$$= \frac{d}{r} (ra + 9d) = 0 \rightarrow \frac{d}{r} (ra + 9d) = 0 \rightarrow \frac{d}{r} (ra + 9d) = 0 \rightarrow \frac{d}{r} (ra + 9d) = 0 \quad (7)$$

$$b' = d(a + rd) = \frac{1}{r} \times d(a + rd) \rightarrow ra + 9d = a + rd \rightarrow ra = d \rightarrow \frac{dr}{a} = \frac{a + ra}{a} = 1 \quad (8)$$

$$= a + (n-1)d, \quad t_{n-1} = a + (n-2)d \rightarrow a + (n-1)d = a + (n-2)d + d \rightarrow d = 1 \quad (9)$$

$$= a_1 + 9d = a_1 + 10 \rightarrow a_1 + 10 = 100 \rightarrow a_1 = 90 \rightarrow n = 10 \quad (10)$$

$$\frac{b-a}{n+1} \rightarrow \frac{100-1}{10} = \frac{99}{10} = 9.9 \rightarrow d = 9.9 \quad (11)$$

$$\frac{1}{r} = \frac{r_0}{r(n-1)} = \frac{10}{n-1} \rightarrow a_{n+1} = 11 \rightarrow a_{n+1} = a_1 + n \times \frac{10}{n-1} \rightarrow a_{n+1} = a_1 + \frac{10n}{n-1} = 11 \rightarrow \frac{10n}{n-1} = 10 \rightarrow n = 11 \quad (12)$$

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

$$a_{n+r} = a_1 + (n+r)d$$

$$a_r = a_1 + rd$$

$$a_{1+r} = a_1 + rd$$

$$\left. \begin{array}{l} a_n + a_{n+r} = a_1 + (n-1)d + a_1 + (n+r)d \\ a_r = a_1 + rd \end{array} \right\} \rightarrow a_n + a_{n+r} = a_1 + (n-1)d + a_1 + (n+r)d = 2a_1 + (2n+r-1)d \rightarrow$$

$$(r+1)d = 1d \rightarrow \boxed{n=1}$$

$$a_n = r a_{\frac{n}{r}} \rightarrow a_1 = r a_{\frac{1}{r}} \rightarrow a_1 + rd = r a_1 + rd \rightarrow a_1 = -d$$

$$d(k-r) = 0 \rightarrow \boxed{k=r} \rightarrow \text{ } \cdot$$