

$$\text{جدا آید} \Rightarrow 9^2 = 81$$

$$\text{جدا آید} \Rightarrow 1^2 = 45 \quad 45 + 1 = 46$$

$$\frac{45 + 81}{2} = \frac{126}{2} = 63$$

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{1, 2, 3}, {4, 5, 6, 7, 8, 9, 10, 11, 12}, {13, 14, ...}, {15, ...}, {16, ...}

{17, 18, ...}, {19, 20, ...}, {21, 22, ...}, {23, 24, ...}

$$\frac{24 + 121}{2} = 72.5$$

$a_0 = r^0 = 1 / n=1 \rightarrow k=0 \rightarrow a_1 = r$
 $n=2 \rightarrow k=0 \rightarrow a_2 = \left[\frac{r}{r} \right] + a = 1 + a / n=3 \quad k=1 \quad a_3 = r^1 = r$
 $n=4 \rightarrow k=1 \rightarrow a_4 = 2 / n=5 \rightarrow k=1 \rightarrow a_5 = \left[\frac{2}{r} \right] + a = 1 + a$
 $n=4 \rightarrow k=2 \rightarrow a_6 = r^2 = r^2 / n=7 \rightarrow k=2 \rightarrow a_7 = 0 / n=8 \rightarrow k=2 \rightarrow a_8 = \left[\frac{0}{r} \right] + a = 2 + a$
 $n=9 \rightarrow k=3 \rightarrow a_9 = r^3 = r^3$

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$$a_1 = r / a_2 = 1 + a / a_3 = r / a_4 = 2 / a_5 = 1 + a / a_6 = r^2 / a_7 = 0 / a_8 = 2 + a$$

$$a_9 = 1 / \Rightarrow 1 + r + 1 + a + r + r + 1 + a + r + 0 + r + a + 1 = 2a + 3a = 19$$

$$\Rightarrow 3a = -4 \Rightarrow a = (-4/3)$$

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$$a_1 + a_2 + a_3 + \dots + a_{19} = -1 + (-1) + 0 + \dots + 0 = -2$$

$$1 + (-1) + 1 + (-1) + \dots + 1 + (-1)$$

$$25a + 5b + c = 14$$

$$49a + 7b + c = 14.1$$

$$24a + 2b = 13.1 \Rightarrow 24 \left(-\frac{1}{5} \right) + 2b = \frac{13.1}{10} \Rightarrow 2b = \frac{13.1}{10} + \frac{24}{5}$$

$$\frac{1}{10} \times (-14) = -\frac{1}{5} = a \quad 2b = \frac{13.1 + 48}{10} = \frac{61.1}{10} = 6.11$$

$$a_5 = d_1 \Rightarrow 14 \left(-\frac{1}{5} \right) + d_1 + c = 14 \Rightarrow c = -1 \quad b = 3$$

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$$a_1 + 10d_A = b + d_B$$

$$a - b = d_B - 10d_A$$

$$a_1 = b_1$$

$$a + 10d_A = b + 4d_B$$

$$a - b = 4d_B - 10d_A$$

$$b_{10} = b + 9d_B = 0$$

$$b = -9d_B \Rightarrow -9 \left(\frac{r}{a} d_A \right) = -\frac{36}{a} d_A$$

$$b_{15} = b + 14d_B \Rightarrow -\frac{36}{a} d_A + 14 \left(\frac{r}{a} d_A \right) = 0$$

$$d_B - 10d_A = 4d_B - 10d_A$$

$$r d_A = 3d_B \rightarrow d_B = \frac{r}{3} d_A$$

$$r d_A \rightarrow \frac{r d_A}{d_A} = \frac{r}{1}$$

$$\text{ملاحظة: } \frac{a_1}{d} = \frac{a_1 + r d}{d} \quad \frac{a_1 + r d}{\frac{r}{r} a_1} = \frac{q}{r} \quad \frac{a_1 + r d}{d} = \frac{q}{r} \quad \frac{a_1 + r d}{d} = \frac{q}{r} \quad \frac{a_1 + r d}{d} = \frac{q}{r}$$

$$4 a_1^r - r a_1 a = \Delta a_1 a$$

$$r a_1 (r a_1 - a) = \Delta a_1 a \quad a_1 + r d = 0$$

$$r a_1 (a_1 + r d) = \Delta (a_1 + r d) a_1 \quad a_1 = -r d$$

$$\hookrightarrow r a_1 = \Delta a_1 \rightarrow r(a_1 + d) = \Delta a_1 \rightarrow r a_1 + r d = \Delta a_1 \rightarrow r d = r a_1$$

$$c, c+d, c+rd \quad c+d = \frac{c q^r}{r}$$

$$\frac{c}{r}, \frac{c q}{r}, \frac{c q^r}{r} \quad d = c \left(\frac{q^r}{r} - 1 \right)$$

$$c + r d = \frac{c q}{r} \Rightarrow c \left(\frac{q}{r} - 1 \right) = r d \quad \frac{r d}{d} = \frac{c \left(\frac{q}{r} - 1 \right)}{c \left(\frac{q^r}{r} - 1 \right)} = \frac{1}{\frac{q}{r} + 1} = r$$

$$\Rightarrow 1 = q + r \Rightarrow q = -1 \quad r q = -r$$

$$\begin{array}{ccc} c & b & a \\ c & c q & c q^r \end{array} \quad r c q = c + r d \Rightarrow r d = c (r q - 1)$$

$$\begin{array}{ccc} c & r a & r b \\ c & c + d & c + r d \end{array} \quad r c q^r = c + d \Rightarrow d = c (r q^r - 1)$$

$$\frac{r d}{d} = \frac{r q^r - 1}{r q^r - 1} = r \Rightarrow r q^r - r q - 1 = 0$$

$$\Delta = r d \rightarrow q = \frac{r \pm \Delta}{r}$$

$$\frac{a_1}{a_1} \Rightarrow \frac{a_1 q^1}{a_1 q^0} = q^r = \left(\frac{-1}{r} \right)^r = \frac{-1}{r^r}$$

$$\frac{a_1 q^0}{a_1 q^r} + \frac{a_1 q}{a_1 r} = \frac{q^r}{a_1 r} + \frac{q}{a_1} = r$$

$$\frac{q^r}{a_1 r} + \frac{q}{a_1} - r = 0 \rightarrow \frac{q}{a_1} = 1$$

$$\frac{q^r}{a_1 r} + \frac{q}{a_1} - r = 0 \rightarrow \frac{q}{a_1} = -r$$

$$\frac{a^r}{a_1} = \frac{a^r}{a_1} = \frac{a}{q} \rightarrow \frac{a}{q} = 1$$

$$a_1 q^r = \sqrt{a_1 q^r} \quad a_1 q^r = r v \quad \frac{1}{r} - a = ?$$

$$a_1 q^r = r v \quad a_1 q^r = r v \quad a_1 q^r = r v$$

$$(a_1 q^r)^r = (\sqrt{a_1 q^r})^r \Rightarrow a_1^r q^{r^2} = a_1 q^r \rightarrow \frac{a_1^r q^{r^2}}{a_1 q^r} = 1 \Rightarrow a_1 q = 1 = a_1$$

$$\frac{1}{r} - \frac{1}{r} = \frac{r-r}{r} = \frac{1}{r}$$