

14

$$\frac{15}{11-5} = 1 = d$$

$$5\omega + 8 = 13 \quad \checkmark$$

برای ریاضی

$$11 = 4^2 = \text{عدد آخر دشی شص}$$

$$11^2 + 1 = 122 = \text{عدد اول} \quad (2)$$

$$[1, 2, 3], [4, \dots, 9], [10, \dots, 19], [20, \dots, 11], [11, \dots, 24]$$

نیمه دینه عدد آخر
دسته قبلیتو
وارد دسته جیدین

$$\frac{(11 + 24) \times 19}{2} = 265$$

$$\text{میانگین} = \frac{265.6}{19} = 14$$

جواب صفی آخر...

$$a_1 = -2 \times 0 + \varepsilon = \varepsilon$$

$$2, 4, 8, 11, \dots, 29 = 3K + 2$$

(3)

$$a_r = \left[\frac{r}{0+r} \right] + \varepsilon = d$$

$$a_r + a_\omega + a_1 + \dots + a_{19}$$

$$\Rightarrow \omega + \omega + 9 + 9 + 9 + 9 + 9 + 9 + 9 = 10 + \varepsilon 1 = 11$$

جواب صفی آخر...

$$\frac{1}{x} \times (-1\varepsilon) = -\frac{1}{\omega} \quad a_n = -\frac{n^2}{\omega} + bn + c$$

(4) (2)

$$a_\omega = -\omega + \omega b + c = 1\varepsilon \Rightarrow \omega b + c = 19$$

$$a_v = -9\varepsilon + vb + c = 17, 2 \Rightarrow vb + c = 27$$

$$2b = 27 - 19 = 8$$

$$b = 4 \quad \left\{ \begin{array}{l} a_n = -\frac{n^2}{\omega} + 4n - 1 \\ c = -1 \end{array} \right. \quad \left| \begin{array}{l} a_{10} = -\frac{100}{\omega} + 40 - 1 = 1\varepsilon \\ a_1 = -\frac{1}{\omega} + 4 - 1 = 2\varepsilon \end{array} \right. \quad \left| \begin{array}{l} \frac{a_{10}}{a_1} = \frac{1\varepsilon}{2\varepsilon} = \frac{1}{2} \end{array} \right. \quad \checkmark$$

$$a_r = \varepsilon_f \quad a_v = \varepsilon_1$$

$$d(t) = \frac{\omega}{\varepsilon} d(a)$$

(5) (2)

$$\frac{a_v - a_r}{\omega} = \frac{n}{\omega}$$

$$\frac{1 - \varepsilon}{\varepsilon} = \frac{n}{\varepsilon}$$

$$d(a) = \frac{\varepsilon}{\omega} d(t)$$

$$\varepsilon \times \frac{\varepsilon}{\omega} d(t) = \varepsilon d(t) \quad \checkmark$$

$$\left. \begin{aligned} g(a+d)^r &= \cancel{a^r} + \cancel{r}ad + \cancel{r}a^r + \cancel{r}ad \\ &= \cancel{a^r} + \cancel{r}ad + \cancel{r}ad \\ &= \cancel{a^r} + 2rad \end{aligned} \right\} = \cancel{a^r} + 2rad = ra^r + ad$$

(r)

$$g = \frac{ra^r + ad}{d^r} = \frac{ra^r}{d^r} + \frac{a}{d}$$

$$\frac{a}{d} = \frac{a+d}{d} = \frac{a}{d} + r$$

$$\frac{a}{d} + r = t \Rightarrow rt^r + t = g$$

$$\frac{-1 \pm \sqrt{1+\epsilon\lambda}}{\epsilon} = -r$$

$$\frac{a}{d} = \boxed{\frac{g}{r}} \checkmark \quad \epsilon^r + t - g = 0$$

$$\frac{a}{d} = \boxed{1} \checkmark$$

$$b-d, b, b+d$$

$$b, \frac{b-d}{r}, \frac{b+d}{\epsilon}$$

(r) (v)

$$\frac{b^r + bd^r}{\epsilon} = \frac{b^r - rdb + d^r}{\epsilon} \Rightarrow d^r - rbd = 0 \quad d(d - rb) = 0$$

$$\Rightarrow d - rb = 0 \quad d = rb \quad b, \frac{b-rb}{r}, \frac{b+rb}{\epsilon} \Rightarrow \underbrace{b}_{x-1}, \underbrace{-b}_{x-1}, \underbrace{b}_{x-1}$$

$$g = -1 \quad \boxed{rg = -r} \checkmark$$

$$\left. \begin{aligned} a, aq, aq^r & \quad raq, ra, aq^r \end{aligned} \right\} \Rightarrow q^r + rq - \epsilon = 0$$

$$raq + aq^r = \epsilon a \Rightarrow rq + q^r = \epsilon$$

$$\frac{aq^r}{aq^r} = q^r = -\epsilon^r = \boxed{-\epsilon\epsilon} \checkmark \quad \frac{-r \pm \sqrt{9+1r}}{r} = \begin{cases} 1 \times \\ -\epsilon \checkmark \end{cases}$$

(r) (A)

$$\frac{aq^r}{a^r dq^r} + \frac{aq}{da} = r \Rightarrow \frac{q^r}{a^r} + \frac{q}{a} = r$$

$$\frac{a a^r}{a^r q} = \frac{a}{q}$$

(r) (q)

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

$$\frac{q}{a} = \frac{-1 \pm \sqrt{1+\lambda}}{r} = \begin{cases} 1 \\ -r \end{cases} \Rightarrow \frac{a}{q} = \begin{cases} \boxed{1} \checkmark \\ \boxed{-\frac{1}{r}} \checkmark \end{cases}$$

$$a, aq, aq^r, aq^r, rv$$

$$rv = r^r \Rightarrow q^r = 1, a = \frac{1}{r} \checkmark$$

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

(r) (1.)

دسته پنجم (۳)

$\{1, 2, 3\}, \{4, 5, \dots, 12\}, \{13, 14, \dots, 39\}, \{40, \dots, 120\}, \{121, \dots, 343\}$

چون قدر نسبت جمله‌ها یکسانه میانگینشون برابر میانگین جمله اول و آخره!

$$\bar{X} = \frac{343 + 121}{2} = 242$$

ضابطه اول $\rightarrow a_0, a_3, a_4, a_9$

ضابطه دوم $\rightarrow a_1, a_4, a_7$

ضابطه سوم $\rightarrow a_2, a_5, a_8$

$$S_{10} = 1 + 4 + (1+a) + 2 + (1+a) + 4 + 0 + (2+a) + 8 = 19 \rightarrow a = -2$$

جمع جمله‌ها خواسته شده از ضابطه سوم بدست میاد:

$$a_n = \left[\frac{n}{K+2} \right] - 2 \xrightarrow{n=3K+2} \left[\frac{3K+2}{K+2} \right] - 2 = \left[\overset{\text{میاد بیرون}}{2} + \frac{K-2}{K+2} \right] - 2 = \left[\frac{K-2}{K+2} \right]$$

این عبارت به ازای $K=0$ برابر ۱- و به ازای بقیه احوار صفره پس جواب خواسته شده ۲-.