

۱

$\{17\}, \{2, 3, 4\}, \{5, 6, 7, 8, 9\}$

آین: $k^2 \Rightarrow 9^2 \Rightarrow 81$ توین جابریسته (۲)

اوپن $\rightarrow (k-1)(k-1)+1 \Rightarrow 64$ توین جابریسته

و $\frac{64+81}{2} = 72.5$ ✓

۲

$[12, 13], [14, 15], [16, 17], [18, 19], [20, 21]$

$24 \times 24 = 576$ (۲)

$576 \times [12, 13, 14, 15, 16, 17, 18, 19, 20, 21] \rightarrow \frac{(12+21) \times 24}{2} = 240$ ✓

۳

جواب در پاسن صفحه

(۵)

۴

$ax^2+bx+c \rightarrow 2a+2b+c=14$ $9a+7b+c=17$ (۲)

$a = \frac{1}{14}(-2a-2b-c)$ $a = \frac{-14}{14} = -1$ $\Rightarrow \frac{1}{8}x^2 + \frac{1}{2}x - 1$ (۲)

$\begin{cases} \frac{1}{8} \times 2a + 2b + c = 14 \\ 9a + 7b + c = 17 \end{cases} \rightarrow \begin{cases} 2a + 16b + 2c = 112 \\ 9a + 7b + c = 17 \end{cases}$ $\frac{1}{8} + \frac{2}{8} - \frac{5}{8} = \frac{1}{8}$

۵

$a+2d = a+d$ $a+9d = a+d$ $\Rightarrow a+2d = -1d$ $\Rightarrow a+2d = -1d$ $\Rightarrow a+2d = -1d$ (۲)

$d = \frac{5}{2}d'$ $a+2d = -1d'$ $\Rightarrow a+2(\frac{5}{2}d') = -1d'$ $\Rightarrow a+5d' = -1d'$ $\Rightarrow a = -6d'$ (۲)

$$a(a+1)x^r + (r+a)x \partial a = r(a+1) \rightarrow a \xrightarrow{\frac{1}{r}} \frac{1}{a+1} \checkmark$$

$$\frac{a}{d} = \varepsilon(\partial g)$$

③

$$q = \frac{a}{r} \times \frac{r}{c} = \frac{a}{c}, \quad b = \frac{c}{\Sigma} \times q$$

$$b. \frac{a+c}{r} \Rightarrow \frac{a+c}{r}, \frac{c}{r} \Rightarrow r, \frac{r}{c} \Rightarrow r, \frac{r}{c}$$

$$\frac{a+c}{1} = \frac{c}{2} \times \frac{q^r}{c^r} \Rightarrow \frac{a+c}{1} = \frac{q^r}{c} \xrightarrow{\times c} c(a+c) = q^r \rightarrow a = \frac{q^r}{c}$$

$$2x^2 - x - 1 = 0 \Rightarrow x = \frac{1}{2} \quad \text{b. } x = \frac{1}{2} \Rightarrow \frac{9}{2} = \frac{1}{2} \quad \text{g. } \frac{9}{2} = \frac{1}{2} \quad \text{h. } \frac{9}{2} = \frac{1}{2}$$

$$C_{\text{شکل}} = \frac{a}{q} \frac{a}{q} \frac{a}{q} \frac{a}{q} \dots$$

$$b = ac$$

$$C \rightarrow c, 2a, 3b$$

$$2a - c, 2b - 2a \Rightarrow$$

$$Pa - c_s \quad Pb - Pa \Rightarrow$$

$$\Rightarrow \tau(a - qf) = \tau(qf) - \tau \Rightarrow \tau a - qf - \tau qf = 0 \quad \therefore (d)$$

قوله س، چون جمله ثابت می ده $\Rightarrow q = 1$ $\frac{-3 \pm 5}{2} = q$ $\xrightarrow{\text{درجه دوم}} -3 - q^2 - q^2 = 0$ $\sqrt{q^2 - 3} = -q^2 - 3$ $\frac{q^2}{q^2} = q^2$

$$\frac{a^r}{a_r} = \frac{a q^r}{(a q)^r} + \frac{a q}{(a)^r} = r \cdot \frac{q^r}{a^r} + \frac{q x_a}{a x_a} = q^r + a q - r a^r \quad (2)$$

$$q = \frac{-a_1 \pm \sqrt{4a_1^2 + a_1^2}}{2} \quad a_1 \rightarrow a_1 \pm a_1$$

$$Q_2 = 7V$$

$3^{-1}, 3^0, 3^1, 3^2, 3^3 \rightarrow$ (دینا کے سبب)

$$\frac{1}{r} = \frac{1}{c} + \frac{1}{y}$$

④

$$\begin{cases} a_1 = 1 \\ a_2 = 2 \\ a_4 = 4 \\ a_9 = 8 \end{cases} \quad \begin{cases} a_1 = 4 \\ a_4 = 2 \\ a_9 = 0 \end{cases}$$

$$\begin{cases} a_2 = a+1 \\ a_5 = a+1 \\ a_8 = a+2 \end{cases}$$

سوال ۳) ۵

اول ← a_9, a_8, a_7, a_6

دوم ← a_5, a_4, a_3

سوم ← a_2, a_1, a_0

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

جمع جملات $a_2 + a_5 + \dots$ از دنباله سوم :

$$a_n = \left\lfloor \frac{n}{k+2} \right\rfloor + a \xrightarrow{n=3k+2} \left\lfloor \frac{3k+2}{k+2} \right\rfloor - 2 \rightarrow a_n = \left\lfloor \frac{2(k+2)}{k+2} + \frac{k-2}{k+2} \right\rfloor - 2$$

$$\rightarrow S_n = \left\lfloor 2 + \frac{k-2}{k+2} \right\rfloor - 2 = \frac{k-2}{k+2}$$

عبارت $\left\lfloor \frac{k-2}{k+2} \right\rfloor$ به ازای $k=0, k=1$ برابر ۱- است، به ازای سایر اعداد حسابی برابر صفر است :

$$\sum_{k=0}^4 \left\lfloor \frac{k-2}{k+2} \right\rfloor = -2$$