

المصادر : ١١

19, ۷۵۱ فرس

$$\left. \begin{array}{l} b = \frac{1}{f} \\ c = 0 \end{array} \right\} a_n = \frac{1}{f} n^2 - \frac{1}{f} n$$

$$\frac{12 \times 10}{5}$$

(A)

$$t_n = 4, 9, 9, 9, 0, \dots$$

$$\begin{array}{cccc} \uparrow & \uparrow & \uparrow & \uparrow \\ +3 & +0 & -3 & -9 \end{array}$$

$$\begin{array}{ccc} \uparrow & \uparrow & \uparrow \\ -3 & -9 & -9 \end{array}$$

$$\rightarrow 2A = 3 \rightarrow A = -\frac{3}{2}$$

سوال 9

$$t_1 = 4 \rightarrow -\frac{3}{2}(1)^2 + B = 4 \rightarrow B = \frac{10}{2}$$

$$3(-\frac{3}{2}) + 4(\frac{10}{2}) = -\frac{9}{2} + \frac{40}{2} = \frac{31}{2} = 15.5$$

$$t_n = 4, 9, 9, 9, 0, \dots$$

$$\begin{array}{l} 2a_2 = 3 \\ a_2 = \frac{3}{2} \end{array}$$

$$t_1 = -\frac{3}{2} + b + c = 4 \Rightarrow b + c = \frac{10}{2} \quad (9)$$

$$t_2 = \frac{3}{2} \times 4 + 2b + c = 9 \Rightarrow 2b + c = 1.5 \quad (10)$$

$$t_n = An^2 + Bn$$

$$A = \frac{3}{2} \quad B = \frac{10}{2}$$

$$3A + 4B =$$

$$\frac{3}{2} \times 3 + 4 \times \frac{10}{2} = \frac{9}{2} + 20 = \frac{49}{2} = 24.5$$

$$b = \frac{10}{2}$$

$$t_n = -4, -9, 0, \dots$$

$$\begin{array}{l} 2a_2 = 1 \\ a_2 = \frac{1}{2} \end{array}$$

$$\begin{array}{l} b + c = -1 \\ 2b + c = -1 \end{array}$$

$$\begin{array}{l} b = -1 \\ c = -4 \end{array}$$

$$n^2 - n - 4$$

(10)

10

$$t_1 = 31 \quad t_2 = 21$$

$$\begin{array}{l} -1 \times a_1 + d_2 \times 1 \\ a_1 + 3d_2 = 21 \end{array}$$

$$2d_2 = 6$$

$$d_2 = 3$$

$$a_1 = 24$$

$$a_n + 1 = 24 + (n-1) \times 3$$

$$n^2 - n - 4 = a_n + 1$$

$$n^2 = 4n + 24$$

$$n^2 - 4n - 24 = 0$$

$$(n-4)(n+6) = 0$$

$$n = 4 \quad n = -6$$