

$\omega = 4 + 2b = 6 \Rightarrow b = \frac{1}{2}$
 $t_n = \frac{3}{4}n^2 + \frac{1}{4}n \Rightarrow t_{10} = 1\omega - \omega = 1\omega$
 $a = \frac{3}{4} \quad c = 0$

$a = \frac{1}{4} \quad c = 0$
 $1 = 2 + 2b \Rightarrow b = -\frac{1}{2}$
 $t_n = \frac{1}{4}n^2 + \frac{1}{4}n \Rightarrow \omega = \frac{1}{4}n^2 - \frac{1}{4}n = n(\frac{1}{4}n - \frac{1}{4})^2$
 $\Rightarrow n = 11$

$t_n = 1n - 3 \Rightarrow t_{11} = 11 - 3 = 8$
 $a_n = 4n + 1 \Rightarrow a_{11} = 44 + 1 = 45$

$a_n = \frac{(-1)^n}{n} \Rightarrow a_p = \frac{1}{p}$
 $a_p - a_1 = \frac{1}{p} - (-1) = \frac{p}{p}$
 $a_1 = \frac{-1}{1} = -1$

$b_p = a_k = -2v - 21 = -5k + 22 \Rightarrow -2v = -5k \Rightarrow k = 14$
 $b_n = (-3)^n - v_n$
 $a_n = -5n + 22$

$$t_n = a_n + b$$

$$t_1 - t_v = 12 \Rightarrow 1 \cdot a + b - v a - b = 12 \Rightarrow (1-v)a = 12 \Rightarrow a = 12$$

$$t_7 - t_1 = ? = 49a + b - a - b = 48a = 576$$

$$a_n = d n + b \quad a_1 = v \quad a_7 = 12 \Rightarrow d = \frac{12-v}{6} = 2 \Rightarrow 2 \times 6 + b = 12 \Rightarrow b = 0$$

$$a_1 = b, \quad a_n = b_p \quad (b_n = \frac{1}{n} \times c = \frac{1}{n} - \omega)$$

$$\frac{1}{n} = a + c \quad 11 = 2a + c \Rightarrow b_p - b_1 = 2a + c - a - c = a = 11 - 2 = 9 \Rightarrow a = 9$$

$$b_p = 2a + c = 11 \Rightarrow 17 + c = 11 \Rightarrow c = -6$$

$$t_n = \frac{1}{\omega}, \frac{1}{v}, \frac{1}{a}, \frac{1}{11} \Rightarrow \frac{1}{\omega} < \frac{1}{v} \Rightarrow \omega > v$$

$$\Rightarrow 11 - 2 < 4n + 9 = 2n + 12 \Rightarrow n < 4 \Rightarrow n = 1, 2, 3, 4, 5, 6$$

جواب

$$t_n = \frac{1}{\omega}, \frac{1}{v}, \frac{1}{a}, \frac{1}{11} \quad A = -\frac{1}{\omega} \quad t_1 = -\frac{1}{\omega} + B = 1 \Rightarrow B = 1 + \frac{1}{\omega}$$

$$t_n = A n^2 + B n = -\frac{1}{\omega} n^2 + \left(1 + \frac{1}{\omega}\right) n$$

$$2A + \omega B = -\frac{2}{\omega} + \frac{2}{\omega} + \frac{2}{\omega} = \frac{2}{\omega} = 12 \Rightarrow \omega = \frac{1}{6}$$

9

$$t_n = -\frac{1}{\omega}, -\frac{1}{v}, 0, \dots$$

$$t_n = a n^2 + b n + c \quad a = \frac{1}{\omega} = 1 \quad c = -\frac{1}{\omega} = -1$$

$$t_1 = -1 = 1 + b - 1 \Rightarrow b = 1 \Rightarrow t_n = n^2 - n - 1$$

$$a_n = t_n \Rightarrow n = 3 \Rightarrow n^2 - n - 1 = 5 \Rightarrow n(n-1) = 6 \Rightarrow n = 3$$

1.

$$a_n = d n + b = \omega n + 1 \quad d = \frac{12-1}{6} = \frac{11}{6}$$

$$a_1 = 12 \quad a_7 = 12 \Rightarrow 12 = 11 + b \Rightarrow b = 1$$