

$$a_1 - a_v = 1r \quad a_1 - a_1 = ? \quad t_n = an + b$$

$$t_v = va + b \quad t_1 = 1 \cdot a + b \quad t_1 - t_v = 1 \cdot a + b - (va + b) \Rightarrow ra = 1r$$

$$a = r \quad t_1 = sa + b \quad t_1 = a + b \Rightarrow t_v - t_1 = \Delta a \Rightarrow \underline{r.}$$

$$t_r = v \quad t_f = 1a \quad t_r = ra + b = v \quad \begin{cases} -ra - b = -v \\ fa + b = 1a \end{cases} \quad \begin{matrix} a = r \\ b = -1 \end{matrix} \quad t_n = fn - 1$$

$$\begin{aligned} a_1 = r = b_1 &\Rightarrow \begin{cases} a(1) + b = r \\ ra + b = 11 \end{cases} \quad \begin{matrix} -a - b = -r \\ ra + b = 11 \end{matrix} \quad b_n = a_n - 1 \\ a_r = 11 = b_r &\Rightarrow \begin{cases} a(1) + b = 11 \\ ra + b = 11 \end{cases} \quad \begin{matrix} -a - b = -r \\ ra + b = 11 \end{matrix} \quad \begin{matrix} a = r \\ b = -1 \end{matrix} \end{aligned}$$

$$t_n = \frac{r}{\Delta}, \frac{r}{v}, \frac{1}{a}, \frac{1}{11}, \dots$$

$$\left. \begin{aligned} r, v, 1, 11 &\Rightarrow a_n = fn - r \\ 0, v, 9, 11 &\Rightarrow a_n = rn + r \end{aligned} \right\} \Rightarrow t_n = \frac{fn - r}{rn + r} < \frac{r}{r} \quad \begin{matrix} an - r < 4n + 9 \\ rn < 1r \quad n < \frac{1r}{r} \end{matrix}$$

$$1, r, r, f, \Delta, \dots$$

$$t_n = 5, 9, 9, 9, 9, 5, 3, 3, \dots \quad c = 0 \quad a = -\frac{r}{r} \quad t_n = -\frac{r}{r} n^2 + bn$$

$$-\frac{r}{r} + b = 5 \quad b = \frac{10}{r} \quad t_n = -\frac{r}{r} n^2 + \frac{10}{r} n$$

$$t_n = An^2 + Bn \Rightarrow A = -\frac{r}{r}, B = \frac{10}{r}$$

$$rA + \Delta B = r(-\frac{r}{r}) + \Delta(\frac{10}{r}) = -\frac{9}{r} + \frac{10}{r} = \frac{1}{r}$$

$$t_n = -5, -9, -9, -9, -9, -5, 3, 3, \dots$$

$$c = -5 \quad a = 1 \quad t_n = an^2 + bn + c$$

$$t_1 = 1 + b - 5 = -9 \quad b = -1 \Rightarrow t_n = n^2 - 1n - 5$$

$$\begin{aligned} t_n &: t_r = ra + b = r1 \quad -ra - b = -r1 \quad a = 1 \quad b = r1 \Rightarrow t_n = an + r1 \\ t_f &: fa + b = f1 \quad \begin{matrix} fa + b = f1 \\ ra = 1 \end{matrix} \end{aligned}$$

$$n^2 - 1n - 5 = 0n + r1 \quad n^2 - 9n = r1 \quad h(n - 9) = r1 \Rightarrow \underline{n = 9}$$