

۱	$\left. \begin{aligned} t_1 &= \varphi_0 \\ t_1 &= \varphi_1 + \varphi_2 d = \varphi_1 \Rightarrow d = \varphi_1 \end{aligned} \right\} \Rightarrow t_n = \varphi_n + \varphi_{n+1} \varphi_1 \Rightarrow \varphi_0 \varphi_1 = \varphi_n + \varphi_{n+1} \varphi_1 \Rightarrow \varphi_n = \varphi_1 \varphi_{n+1}$ $\Rightarrow \varphi_n = \varphi_1 \varphi_{n+1}$
۲	$t_n = \varphi_0 \varphi_1, \varphi_0 \varphi_1 \Rightarrow t_n = \varphi_n + \varphi_{n+1} \varphi_1 \Rightarrow \varphi_n = \varphi_1 \varphi_{n+1}$
۳	$\varphi_{n+1} + \varphi_n + \varphi_{n+1} \varphi_n = -\varphi_n + \varphi_1 \Rightarrow \varphi_n + \varphi_1 d = -\varphi_n + \varphi_1$ $\varphi_n = \varphi_1 + \varphi_1 d = -\varphi_n + \varphi_1 \Rightarrow \varphi_n + \varphi_1 d = -\varphi_n + \varphi_1 \Rightarrow \varphi_n + \varphi_1 d = -\varphi_n + \varphi_1$
۴	$\varphi_n + \varphi_{n+1} = \varphi_n + \varphi_{n+1} \Rightarrow \varphi_n + \varphi_{n+1} = \varphi_n + \varphi_{n+1}$ $\Rightarrow \varphi_n + \varphi_{n+1} = \varphi_n + \varphi_{n+1}$
۵	$\varphi_{n+1} - \varphi_n = \varphi_n + \varphi_{n+1} \Rightarrow \varphi_n + \varphi_{n+1} = \varphi_n + \varphi_{n+1}$ $\varphi_n + \varphi_{n+1} = \varphi_n + \varphi_{n+1} \Rightarrow \varphi_n + \varphi_{n+1} = \varphi_n + \varphi_{n+1}$
۶	$\varphi_n \varphi_1 = \varphi_1 + \varphi_0 d = -\varphi_1 + \varphi_0 = \varphi_1 \varphi_0$
۷	$\varphi_n \varphi_1 = \varphi_1 + \varphi_0 d = -\varphi_1 + \varphi_0 = \varphi_1 \varphi_0$
۸	$t_n = t_{n-1} + \varphi_1 \Rightarrow t_n - t_{n-1} = \varphi_1 \Rightarrow t_n = \varphi_1 + t_{n-1}$ $t_n - t_{n-1} = \varphi_1 \Rightarrow t_n = \varphi_1 + t_{n-1}$
۹	$d = \frac{\varphi_n \varphi_{n-1}}{\varphi_{n-1} \varphi_{n-1} + 1} = \frac{\varphi_0}{\varphi_{n-1} \varphi_{n-1} + 1} \Rightarrow \varphi_n d = \varphi_1 \Rightarrow d = \varphi_1$
۱۰	$t_n + t_{n+1} = t_n + t_{n+1} \Rightarrow t_n + t_{n+1} = t_n + t_{n+1}$ $t_n = \varphi_n t_{n-1} \Rightarrow t_n - t_{n-1} = \varphi_n t_{n-1} - \varphi_{n-1} t_{n-1} = \varphi_n t_{n-1} - \varphi_{n-1} t_{n-1}$