

Theorem Based on Solving Homogeneous Equations – Polynomial Reduction.

Theorem

***Theorem: For a recurrence equation,
 $a_0t_n + a_1t_{n-1} + \cdots + a_kt_{n-k} = 0$, having an order n ,
the characteristic equation will be of the following
form:***

$$a_0r^k + a_1r^{k-1} + \cdots + a_kr^0 = 0$$
