

$$T_0(x) = 1$$

$$T_1(x) = x$$

$$T_2(x) = 2x^2 - 1$$

$$T_3(x) = 4x^3 - 3x$$

$$T_4(x) = 8x^4 - 8x^2 + 1$$

...

$$T_{n+1}(x) = 2xT_n(x) - T_{n-1}(x) \quad n \geq 1.$$