In [1]:
```
using TaylorSeries

displayBigO(false)

function hermite_polynomials(::Type{T}, nmax::Int) where {T <: Integer}

    x = Taylor1(T, nmax)     # Taylor variable
    H = fill(x, nmax + 1)    # vector of Taylor series to be overwritten

    H[1] = 1    # order 0
    H[2] = 2x   # order 1

    for n in 2:nmax
        # recursion relation for order n:
        H[n+1] = 2x * H[n] - 2(n-1) * H[n-1]
    end

    return H
 end

hermite_polynomials(n) = hermite_polynomials(Int, n);

H = hermite_polynomials(10);

function hermite_polynomial(n::Int)
    @assert 0 ≤ n ≤ length(H) "Not enough Hermite polynomials generated"
    return H[n+1]
end

hermite_polynomial(6)
```

Out[1]: $-120 + 720\,t^2 - 480\,t^4 + 64\,t^6$