T(0) = 0 T(n) = 1 + T(n - 2)

T(n) = 1 + T(n - 2) = 1 + (1 + T(n - 4)) = 1+ (1 + 1 + T(n - 6)) = 1+ 1+ 1 + 1 + T(n - 8))

T(n) = 1 + T(n - 2) = (k/2) + T(n - k)

T(0) = 0

n = k

T(n) = (n/2) + T(n - n)

= (n/2) + T(0)

= (n/2) + 0

T(n) = (n/2)

*T* ∈ O(*n/2*)

Does your big-O bound change if, instead of subtracting 1 or 2, you subtract any constant k (assuming n ≥ k and k divides n evenly)?

Yes, it changes because it is linear and also dependent on constant k.