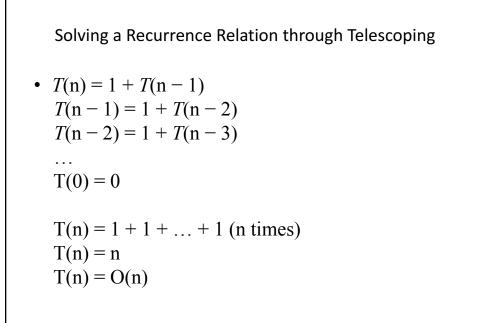


Recurrence Relation for Linear Search

- Study code
- T(0) = 0
- T(n) = 1 + T(n-1)



Recurrence Relation for Binary Search

- Study code
- T(0) = 0
- T(n) = 2 + T(n / 2)

Solving a Recurrence Relation through Telescoping • T(n) = 2 + T(n / 2) T(n / 2) = 2 + T(n / 4) T(n / 4) = 2 + T(n / 8)... T(0) = 0 T(n) = 2 + 2 + ... + 2 (log n times) T(n) = 2*log(n)T(n) = O(log(n))

