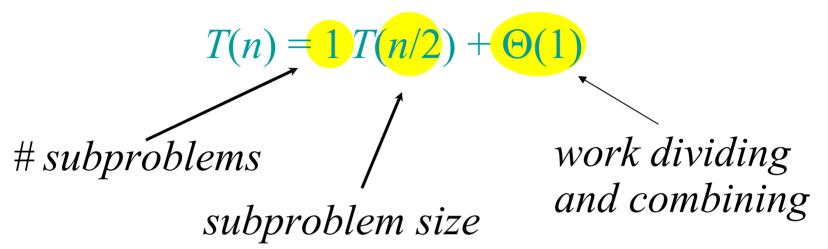


Recurrence for binary search



$$n^{\log_b a} = n^{\log_2 1} = n^0 = 1 \implies \text{CASE 2}(k = 0)$$

 $\implies T(n) = \Theta(\lg n)$.