

# 13-A

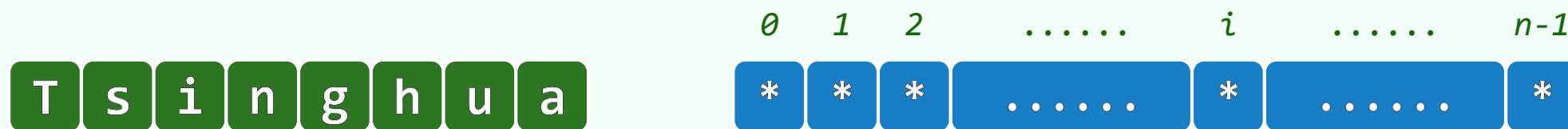
串

ADT

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# 术语



$$S.substr(i, k) = S[i, i + k), \quad 0 \leq i < n, \quad 0 \leq k$$



$$S.prefix(k) = S.substr(0, k) = S[0, k), \quad 0 \leq k \leq n$$

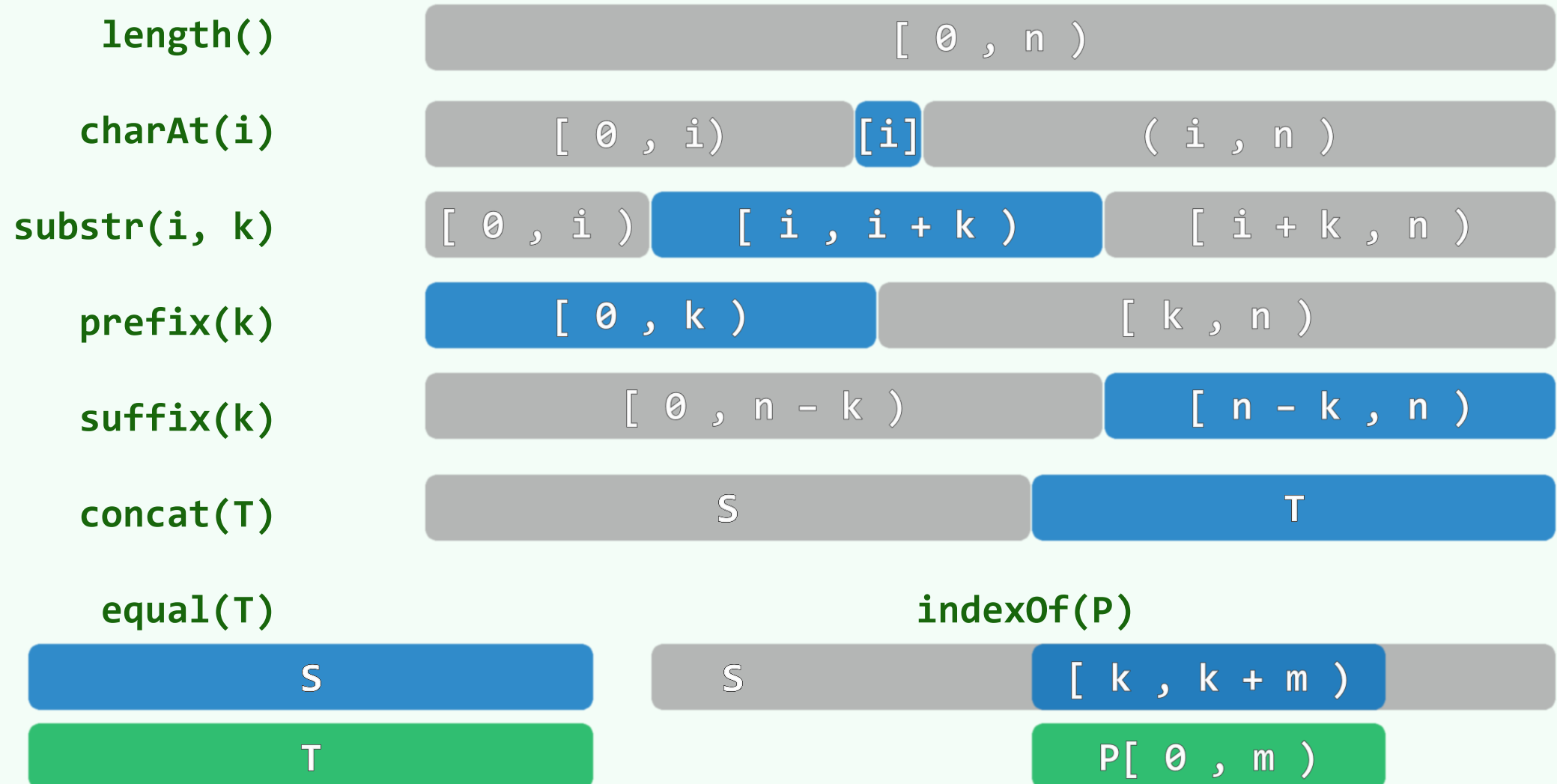


$$S.suffix(k) = S.substr(n - k, k) = S[n - k, n), \quad 0 \leq k \leq n$$



$$S.substr(i, k) = S.prefix(i + k).suffix(k) = S.suffix(n - i).prefix(k)$$

# ADT



# 实例

- ❖ `"data structures".length() = 15`      `"data structures".charAt(5) = 's'`  
`"data structures".prefix(4) = "data"`    `"data structures".suffix(10) = "structures"`  
`"data structures".concat(" & algorithms") = "data structures & algorithms"`  
`"algorithms".equal("data structures") = false`  
`"data structures and algorithms".indexOf("string") = -1`  
`"data structures and algorithms".indexOf("algorithm") = 20`
- ❖ **<string.h>中的对应功能**: `strlen()`、`strcpy()`、`strcat()`、`strcmp()`、`strstr()`
- ❖ 以下，直接利用**字符数组**实现字符串，转而重点讨论**串匹配算法**