算法设计上机题

1. You're given strings J representing the types of stones that are jewels, and S representing the stones you have. Each character in S is a type of stone you have. You want to know how many of the stones you have are also jewels.

The letters in J are guaranteed distinct, and all characters in J and S are letters. Letters are case sensitive, so "a" is considered a different type of stone from "A".

Example

```
Input: J = "aA", S = "aAAbbbb"
Output: 3

Input: J = "z", S = "ZZ"
Output: 0
```

Note:

- S and J will consist of letters and have length at most 50.
- The characters in J are distinct.

2. Given two integers n and k, return all possible combinations of k numbers out of $1 \dots n$.

Example:

```
Input: n = 4, k = 2
Output:
[
    [2,4],
    [3,4],
    [2,3],
    [1,2],
    [1,3],
    [1,4],
]
```