

## 216. Combination Sum III

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题目描述: <https://leetcode.com/problems/combination-sum-iii/>

给定两个数k, n, 求由k个0-9以内的不重复数组成n的所有可能。要求结果按照升序排列。

例如:

```
k = 3, n = 9
```

返回:

```
[[1,2,6],[1,3,5],[2,3,4]]
```

解题思路:

回溯!

代码:

```

class Solution {
public:
    vector<vector<int> > canCombine(int k, int n, int s){
        vector<vector<int> > res;
        if(k == 1){
            if(n <= 9 && n > s)
                return vector<vector<int> > (1, vector<int>(1,n));
            else
                return res;
        }
        for(int i = s+1; i < n - i && i <= 9; i++){
            vector<vector<int> > r;
            r = canCombine(k-1, n-i, i);
            int rsize = r.size();
            for(int j = 0; j < rsize; j++){
                int rjsize = r[j].size();
                vector<int> l;
                l.push_back(i);
                for(int k = 0; k < rjsize; k++){
                    l.push_back(r[j][k]);
                }
                res.push_back(l);
            }
        }
        return res;
    }
    vector<vector<int> > combinationSum3(int k, int n) {
        return canCombine(k, n, 0);
    }
};

```