Combinations

Question: Given two integers n and k, return all possible combinations of k numbers out of 1 ... n.

```
For example,

If n = 4 and k = 2, a solution is:

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

Solutions:

```
class Solution:
    def combine(self,n, k):
        def dfs(start, valuelist):
        if self.count == k: ret.append(valuelist); return
        for i in range(start, n + 1):
            self.count += 1
            dfs(i + 1, valuelist + [i])
            self.count -= 1
        ret = []; self.count = 0
        dfs(1, [])
        return ret
```

Solution().combine(4,2)