

# Partition into K subset which are non-empty

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def partitionInKSubsets(n, k):
    ans = [[] for i in range(k)]
    partitionInKSubsetsUtil(n, k, ans, 0, 1)
    return

def partitionInKSubsetsUtil(n, k, ans, sets, i):
    if i > n:
        if sets == k:
            print(ans)
            return

    for j in range(len(ans)):
        if len(ans[j]) > 0:
            ans[j].append(i)
            partitionInKSubsetsUtil(n, k, ans, sets, i + 1)
            ans[j].pop()
        else:
            ans[j].append(i)
            partitionInKSubsetsUtil(n, k, ans, sets + 1, i + 1)
            ans[j].pop()
            break

partitionInKSubsets(3, 2)
```

[[1, 2], [3]]

[[1, 3], [2]]

[[1], [2, 3]]