

1. <https://leetcode.com/problems/letter-combinations-of-a-phone-number/submissions/>
2. <https://www.geeksforgeeks.org/count-pairs-in-a-sorted-array-whose-product-is-less-than-k/>
3. Given a set of nonnegative distinct integers, and a value K, find out number of subsets of the given set with sum divisible by K using exactly M integer elements of array.

It can be done using 3 state dp.

$dp[i][j][k]$  = number of subset till i index using j number of elements in current subset and k as current modulo.

```
long solve (int i,int j,int k)
{
    if(j==M)
        return k==0;
    if(i==n)
        return 0;
    if(dp[i][j][k]
    !=-1)
        return dp[i][j][k];
    return dp[i][j][k] = solve(i+1,j,k) +
    solve(i+1,j+1,(k+a[i])%K);
}
```