```cpp
/***1191 - Bar Codes:
A bar-code symbol consists of alternating dark and light bars,
starting with a dark bar on the left. Each bar is a number of units wide.
In general, the bar code BC(n, k, m) is the set of all symbols with k bars
that together extend over exactly n units, each bar being at most m units wide.

Input starts with an integer T(≤20000),denoting the number of test cases.
Each case contains three integers: n, k, m (1 ≤ k, m ≤ n ≤ 50).

For each case, print the case number and BC(n, k, m).
**/
#define LL long long int
int n,k,mx;
LL dp[51][51][51];

LL BarCodes(int pos,int bar){
    if(pos==0&&bar==0) return 1;
    if(pos<=0||bar<=0) return 0;

    if(dp[pos][bar][mx]!=-1) return dp[pos][bar][mx];

    LL ret=0;
    for(int i=1;i<=mx&&i<=pos;i++){
        ret+=BarCodes(pos-i,bar-1);
    }

    return dp[pos][bar][mx]=ret;
}
int main(){
    int T; scanf("%d",&T);
    memset(dp,-1,sizeof(dp));
    for(int test=1;test<=T;test++){
        scanf("%d %d %d",&n,&k,&mx);
        LL ans = BarCodes(n,k);
        printf("Case %d: %lld\n",test,ans);
    }
    return 0;
}
```