class Solution {

public:

int change(int amount, vector<int>& coins) {

int n=coins.size();

int dp[n+1][amount+1];

for(int i=0;i<=amount;i++){

dp[0][i]=0;

}

for(int i=0;i<=n;i++){

dp[i][0]=1;

}

for(int i=1;i<=n;i++){

for(int j=1;j<=amount;j++){

if(coins[i-1]<=j){

dp[i][j]=dp[i][j-coins[i-1]]+dp[i-1][j];

}else{

dp[i][j]=dp[i-1][j];

}

}

}

return dp[n][amount];

}

};