#include <iostream>

using namespace std;

bool isSubsetSum(int set[],int n, int sum){

bool subset[n+1][sum+1];

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

subset[i][0]=true;

}

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

subset[0][i]=false;

}

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

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

if(set[i-1]>j){

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

}

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

subset[i][j]= subset[i-1][j] || subset[i-1][j-set[i-1]] ;

}

}

}

return subset[n][sum];

}

int main() {

int set[] = {3, 34, 4, 12, 5, 2};

int sum = 9;

int n = sizeof(set)/sizeof(set[0]);

if (isSubsetSum(set, n, sum) == true)

printf("Found a subset with given sum");

else

printf("No subset with given sum");

return 0;

}