**SUM OF SUBSET**

#include<stdio.h>

int i;

int n;

int m;

void SumOfSubsets(int s,int k,int r,int x[n],int w[n]) {

x[k] = 1;

if(s + w[k] == m) {

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

printf(" %d",x[i]);

}

printf("\n");

}

else if (s + w[k] + w[k+1] <= m) {

SumOfSubsets(s+w[k],k+1,r-w[k],x,w);

}

if((s+r-w[k] >= m) && (s+w[k+1] <= m)) {

x[k] = 0;

SumOfSubsets(s,k+1,r-w[k],x,w);

}

}

int main() {

int r=0;

printf("\nEnter the value of N : ");

scanf("%d",&n);

int x[n];

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

x[i]=0;

}

int w[n];

printf("\nEnter the value of M : ");

scanf("%d",&m);

printf("\nEnter the Weights : ");

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

scanf("%d",&w[i]);

}

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

r = r + w[i];

}

printf("\nSolutions are : \n");

SumOfSubsets(0 ,0 ,r ,x ,w);

return 0;

}

