#include <iostream>

#include<bits/stdc++.h>

#include<vector>

using namespace std;

vector<int> subsetSum(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]] ;

}

}

}

vector<int> v;

for(int i=0;i<=sum/2;i++){

if(subset[n][i]==1){

v.push\_back(i);

}

}

return v;

}

int findMin(int arr[],int n){

int sum=0;

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

sum+=arr[i];

}

vector<int> vec=subsetSum(arr,n,sum);

int mn=INT\_MAX;

for(int i=0;i<vec.size();i++){

mn=min(mn,sum-2\*vec[i]);

}

return mn;

}

int main() {

int arr[] = {10,20,15,5,25};

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

cout << "The minimum difference between two sets is "

<< findMin(arr, n);

return 0;

}