Find a triplet that sum to a given value

#include<iostream>

using namespace std;

bool triplet(int a[10],int n,int sum)

{

int num1,num2,num3,num4;

for(int i = 0;i<n-2;i++)

{

num1 = a[i];

for(int j=i+1;j<n-1;j++)

{

num2 = a[j];

for(int k=j+1;k<n;k++)

{

num3 = a[k];

if(num1+num2+num3 == sum)

{

cout<<num1<<" "<<num2<<" "<<num3<<endl;

return true;

}

}

}

}

return false;

}

int main()

{

int sum;

int a[10],n;

cout<<"Enter the number of elements in the array\n";

cin>>n;

cout<<"Enter the elements of the array\n";

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

cin>>a[i];

cout<<"Enter the sum\n";

cin>>sum;

bool p=triplet(a,n,sum);

if(p == false)

cout<<"No such pairs exist";

return 0;

}