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Question-1

```
#include <iostream>

using namespace std;

int main()
{
   int i,j,n,t;
   cin>>n;
   cin>>t;
   int a[n];
   for(i=0;i<n;i++){
      cin>>a[i];
   }
   for(i=0;i<n;i++){
      for(j=i+1;j<n;j++){
         if(a[i]+a[j]==t){
            cout<<"Pairs found "<<"("<<a[i]<<","<<a[j]<<"), ";
         }
      }
   }
}
```

Question-2

```
#include <bits/stdc++.h>
```

```
using namespace std;

int main()
{
   int i,j,n,k=1;
   cin>>n;
   int a[n];
   int b[n];
   for(i=0;i<n;i++){
      cin>>a[i];
   }
   for(i=0;i<n;i++){
      k=k*a[i];
   }
   for(i=0;i<n;i++){
      b[i]=k/a[i];
   }
   for(i=0;i<n;i++){
      cout<<b[i]<<" ";
   }
}
```

Question-3

```
#include <bits/stdc++.h>
using namespace std;
int maxsum(int a[], int n)
{
if (n == 1)
return a[0];
```

```
int sum = 0;
for (int i = 0; i < n; i++) {
sum += a[i];
}
int curr_max = a[0], max_so_far = a[0], curr_min = a[0], min_so_far = a[0];
for (int i = 1; i < n; i++) {
curr_max = max(curr_max + a[i], a[i]);
max_so_far = max(max_so_far, curr_max);
curr_min = min(curr_min + a[i], a[i]);
min_so_far = min(min_so_far, curr_min);
}

if (min_so_far == sum)
return max_so_far;
return max(max_so_far, sum - min_so_far);
}
int main()
{
   int n,i;
   cin>>n;
   int a[n];
   for(i=0;i<n;i++){
      cin>>a[i];
   }
cout << "large sum is " << maxsum(a, n) << endl;
return 0;
}
```

Question-4

```
#include <iostream>

using namespace std;

int main()
{
   int i,j,n,k,l,m;
   cin>>n;
   int a[n];
   for(i=0;i<n;i++){
      cin>>a[i];
   }
   k=a[1]-a[0];
   for(i=0;i<n;i++){
      for(j=i+1;j<n;j++){
         if(a[j]-a[i]>k){
            k=a[j]-a[i];
            l=a[i];
            m=a[j];
         }
      }
   }
   cout<<"The maximum diff is "<<k<<endl;
   cout<<"The pair found is "<<l<<","<<m;
}
```

Question-5

```
#include <bits/stdc++.h>
```

```
using namespace std;


int fnp(int a[], int n)
{
   for(int i=0;i<n;i++) {
      int j;
      for(j=0;j<n;j++){
         if (i!=j && a[i]==a[j]){
            break;
         }
      }
      if(j==n){
         return a[i];
      }
   }
   return -1;
}
int main()
{
   int n,i;
   cin>>n;
   int a[n];
   for(i=0;i<n;i++){
      cin>>a[i];
   }
   cout<<"The 1st non repeat num is "<<fnp(a,n);
   return 0;
}
```

Question-6

```
#include <bits/stdc++.h>
using namespace std;
int main()
{
   int k,n,i;
   cin>>k;
   cin>>n;
   int a[n];
   for(i=0;i<n;i++){
      cin>>a[i];
   }
   sort(a,a+n);
   int ans=a[n- 1]-a[0];
   int tmin,tmax;
   tmin=a[0];
   tmax=a[n- 1];

   for(i=1;i<n;i++){
      if(a[i]-k < 0){
         continue;
      }
      tmin=min(a[0]+ k,a[i]-k);
      tmax=max(a[i- 1]+k,a[n- 1]-k);
      ans=min(ans,tmax-tmin);
   }
   cout<<"Maximum difference is "<<ans;
}
```