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Question 1:

```
package Hexaware.ArraysPractice;

import java.util.Scanner;

public class Question1 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for(int i = 0 ; i < n ; i++){
            arr[i] = sc.nextInt();
        }
        int target = sc.nextInt();
        for(int i = 0 ; i < n ; i++){
            for(int j=i+1 ; j<n ;j++){
                if(arr[i]+arr[j] == target){
                    System.out.println(arr[i] + " , " +
arr[j]);
                }
            }
        }
    }

}
```

Question 2:-

```java
package Hexaware.ArraysPractice;

import java.util.Arrays;
import java.util.Scanner;

public class Question2 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for(int i = 0 ; i < n ; i++){
            arr[i] = sc.nextInt();
        }
        int[] ans = new int[n];
        for(int i = 0 ; i < n ; i++){
            int product = 1;
            for(int j = 0 ; j < n ; j++){
                if(i==j){
                    continue;
                }
                product *= arr[j];
            }
            ans[i] = product;
        }
        System.out.println(Arrays.toString(ans));
    }
}
```

Question 3:-

```java
package Hexaware.ArraysPractice;

import java.util.Arrays;
import java.util.Scanner;

public class Question3 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for(int i = 0 ; i < n ; i++){
            arr[i] = sc.nextInt();
        }
        int maxSum = 0;
        int start = 0;
        int end = n-1;
        for(int i = 0 ; i < n ; i++){
            int idx = i;
            int cs = 0;
            do{
                if(cs+arr[idx] < arr[idx]){
                    cs = arr[idx];
                    end = idx;
                }
                else{
                    cs += arr[idx];
                }
                if(maxSum < cs){
                    maxSum = cs;
                    start = i;
                }
                idx = (idx+1) % n;
            }while(idx!=i);
        }
        // System.out.println(start);
        // System.out.println(end);
        int idx = end;
        int[] ans = new int[(n-idx)+start];
        int sum = 0;
        for(int i = 0 ; i < ans.length; i++){
            ans[i] = arr[idx%n];
            sum += arr[idx%n];
            idx++;
        }
        System.out.println(Arrays.toString(ans));
        System.out.println(sum);
    }
}
```

Question 4:-

```java
package Hexaware.ArraysPractice;

import java.util.Arrays;
import java.util.Scanner;

public class Question4 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for(int i = 0 ; i < n ; i++){
            arr[i] = sc.nextInt();
        }
        int ans = Integer.MIN_VALUE;
        for(int i = 0 ; i < n ; i++){
            for(int j = i+1; j < n ; j++){
                int temp = Math.abs(arr[i] - arr[j]);
                if(temp > ans && arr[i] < arr[j]){
                    ans = temp;
                }
            }
        }
        System.out.println(ans);
    }
}
```

Question 5:-

```java
package Hexaware.ArraysPractice;

import java.util.Arrays;
import java.util.Scanner;

public class Question5 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for(int i = 0 ; i < n ; i++){
            arr[i] = sc.nextInt();
        }
        int ans = 0;
        if(arr.length == 1){
            System.out.println(arr[0]);
            return;
        }
        for(int i = 0 ; i < n ; i++){
            int flag = 0;
            for(int j = i+1 ; j < n ; j++){
                if(arr[i] == arr[j]){
                    flag = 1;
                }
            }
            int idx = i;
            if(idx!=0){
                for(int j = idx-1 ; j>=0 ; j--){
                    if(arr[i] == arr[j]){
                        flag = 1;
                    }
                }
            }
            if(flag == 0){
                ans = arr[i];
                break;
            }
        }
        System.out.println(ans);
    }
}
```

Question 6:-

```java
package Hexaware.ArraysPractice;

import java.util.Arrays;
import java.util.Scanner;

public class Question6 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = sc.nextInt();
        int[] arr = new int[n];
        for(int i = 0 ; i < n ; i++){
            arr[i] = sc.nextInt();
        }
        int k = sc.nextInt();
        Arrays.sort(arr);
        int ans = arr[n-1] - arr[0];
        for(int i = 0 ; i < n-1 ; i++){
            int min = Math.min(arr[0] + k , arr[i+1] - k);
            int max = Math.max(arr[i] + k , arr[n-1] - k);
            ans = Math.min(ans,max-min);
        }
        System.out.println(ans);
    }
}
```