One-Dimensional Arrays

Program: Check pair with difference k

```c
#include <stdio.h>
int main()
{
    int t;
    scanf("%d", &t);
    while (t--) {
        int n;
        scanf("%d", &n);
        int a[n];
        for (int i = 0; i < n; i++) {
            scanf("%d", &a[i]);
        }
        int k;
        scanf("%d", &k);
        int flag = 0;
        for (int i = 0; i < n; i++) {
            for (int j = i+1; j < n; j++) {
                if (a[i] - a[j] == k || a[j] - a[i] == k)
                {
                    flag = 1; break; }
            }
            if (flag) break; }
            printf("%d\n", flag);
        }
    }
```

Sample Input
1
3 35
4
Sample Output
1

Program: Chocolates

```
# include <stdio.h>
int main()
{
  int t;
  scanf("%d", &t);
  while (t--){
      int c=0, n;
      scanf("%d", &n);
      for (int i = 0; i<=n; i++){
          if (i%2 != 0) c = c+i;
      }printf("%d \n", c);
  }
}
```

Sample Input

3
1
2
3

Sample Output

1
1
4

Program: Football Scores

```c
#include <stdio.h>
int main()
{
  int s1, s2, ans;
  scanf("%d", &s1);
  int ta[s1];
  for (int i=0; i<s1; i++)
  scanf("%d", &ta[i]);
  scanf("%d", &s2);
  int tb[s2];
  for(int i = 0; i<s2; i++)
     scanf("%d", &tb[i]);
  for(int j=0; j<s2; j++)
    {
      ans=0;
      for(int i=0; i<s1; i++){
          if (tb[j] >= ta[i])
          ans++;
      } printf("%d\n", ans);
    }
}
```

Sample Input

4
1
4
2
4
2
3
5

Sample Output

2
4