

Policemen - Thieves 2

Problem	Submissions	Leaderboard	Discussions
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an array of size N. Which has the following specifications: Each element in the array contains either a policeman or a thief. Each policeman can catch only one thief. A policeman cannot catch a thief who is more than K units away from him. We need to find the maximum number of thieves that can be caught.



Input Format

6
P
T
P
T
T
P
3

Output Format

Maximum thieves caught: 3

Sample Input 0

```
6
P
T
P
T
T
P
3
```

Sample Output 0

```
Maximum thieves caught: 3
```

Java 8

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```
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
        Scanner z=new Scanner(System.in);
        int n=z.nextInt();
        char arr[]=new char[n];
        for(int i=0;i<n;i++){
            arr[i]=z.next().charAt(0);
        }
        int k=z.nextInt();
        int count=0;
        for(int i=0;i<n;i++){
            if(arr[i]=='P'){
                for(int j=0;j<k;j++){
                    if((i+j+1)<n && arr[i+j+1]=='T'){
                        count++;
                        arr[i+j+1]='C';
                        break;
                    }
                }
            }
            else if(arr[i]=='T'){
                for(int j=0;j<k;j++){
                    if((i+j+1)<n && arr[i+j+1]=='P'){
                        count++;
                        arr[i+j+1]='C';
                        break;
                    }
                }
            }
        }

        System.out.print("Maximum thieves caught: "+count);
    }
}
```

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