**package** GreedyAlgorithmLab;

**import** java.util.ArrayList;

**class** Count

{

**public** ArrayList<Integer> **indexPolice**;

**public** ArrayList<Integer> **indexThief**;

**public int k**;

**public int count**;

**public** Count(ArrayList<Integer> indexPolice, ArrayList<Integer> indexThief, **int** k) {

**this**.**indexPolice** = indexPolice;

**this**.**indexThief** = indexThief;

**this**.**k** = k;

**this**.**count** = 0;

}

**public int** countCaughtThief()

{

**int** length = Math.*min*(**indexPolice**.size(),**indexThief**.size());

**for** (**int** i=0;i<length;i++)

{

**if** (Math.*abs*(**indexPolice**.get(i)-**indexThief**.get(i))<=**k**)

{

**count** = **count** + 1;

}

}

**return count**;

}

}

**public class** PoliceCatchesThief {

**public static void** main(String[] args) {

ArrayList<Character> arrayList = **new** ArrayList<>();

ArrayList<Integer> indexPolice = **new** ArrayList<>();

ArrayList<Integer> indexThief = **new** ArrayList<>();

**char**[] ch = {**'P'**, **'T'**, **'P'**, **'T'**, **'T'**, **'P'**};

**for** (**int** i=0;i<ch.**length**;i++)

{

arrayList.add(ch[i]);

}

**int** k = 3;

**for** (**int** i=0;i<arrayList.size();i++)

{

**if** (arrayList.get(i)==**'P'**) { indexPolice.add(i);}

**else** { indexThief.add(i);}

}

Count object = **new** Count(indexPolice, indexThief, k);

System.***out***.println(object.countCaughtThief());

}

}