

```
/*
```

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Contest 2

```
*/
```

```
#include <iostream>
```

```
#include <string>
```

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

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int c;
```

```
    string f[5];
```

```
    for(int i =0; i<5; i++)
```

```
    {
```

```
        getline(cin,f[i]);
```

```
    }
```

```
    string a,b,aa,bb,strResult;
```

```
    int p=0;
```

```
    for(int i = 0; i<5; i++)
```

```
    {
```

```
        strResult = "";
```

```
        // seperate string
```

```
        p=f[i].find(" ");
```

```
        a =f[i].substr(0,p);
```

```
        b= f[i].substr(p+1,f[i].length()-p);
```

```
        //rule 1
```

```
        for(int j =0; j<a.length();j++ )
```

```
        {
```

```
            if( a[j]==a[j+1])
```

```
            {
```

```
                a.erase(j,1);
```

```
            }
```

```
        }
```

```
        for(int j =0; j<b.length();j++ )
```

```
        {
```

```
            if( b[j]==b[j+1])
```

```
            {
```

```

        b.erase(j,1);
    }

}

//cout<<a<<" "<<b<<endl;
//rule 2 //65 69 73 79 85 89
aa="";
aa+=a[0];
for(int j =1; j<a.length();j++ )
{
    if( a[j]!='A' && a[j]!='E' && a[j]!='T' && a[j]!='O' && a[j]!='U' )
    {
        aa += a[j];
    }

}

a=aa;

bb="";
bb+=b[0];
for(int j =1; j<b.length();j++ )
{
    if( b[j]!='A' && b[j]!='E' && b[j]!='T' && b[j]!='O' && b[j]!='U')
    {
        bb += b[j];
    }

}

b=bb;
//cout<<a<<" "<<b<<endl;
//rule 3
if(a.length()>b.length())
{
    c=b.length();
}
else
{
    c=a.length();
}
aa="";
bb="";
for(int j =0; j<c;j++ )
{
    if( a[j]!=b[j])
    {
        aa += a[j];
        bb+=b[j];
    }
}
}

```

```

if(a.length()>b.length())
{
    aa=aa+a.substr(c,a.length()-c);
}
else if(a.length()<b.length())
{
    bb=bb+b.substr(c,b.length()-c);
}
b=bb;
a=aa;
//cout<<a<<" "<<b<<endl;
//rule 4
c=0;
if(a.length()>b.length())
{
    c=b.length();
}
else
{
    c=a.length();
}
aa="";
bb="";
for(int j =0;j<c;j++ )
{
    if( a[a.length()-j-1]!=b[b.length()-j-1])
    {
        aa = a[a.length()-j-1] + aa;
        bb = b[b.length()-j-1] + bb;

    }
}

if(a.length()>b.length())
{
    aa= a.substr(0,a.length()-c)+aa;
}
else
{
    bb= b.substr(0,b.length()-c)+bb;
}

b=bb;
a=aa;

if(a.length()>b.length())
{
    strResult+=b;
}

```

```
else if(b.length()>a.length())
{
    strResult+=a;
}
else
{
    for(int j = 0; j<a.length(); j++)
    {
        if(a[j]>b[j])
        {
            strResult+=b;
            j = a.length();
        }
        else if(a[j]<b[j])
        {
            strResult+=a;
            j = a.length();
        }
    }
}

cout<<(i+1);
cout<<" ";
cout<<strResult<<endl;
}
return 0;
}
```