

```
def findprobability(c,t,o,s):
    county=0
    countn=0
    count1=0
    count2=0
    count3=0
    #print(o)
    for key,val in data.items():
        if val[3] == 'yes':
            county+=1
        else:
            countn+=1

        if val[0]==c and val[3]==s:
            count1+=1
        if val[1]==t and val[3]==s:
            count2+=1
        if val[2]==o and val[3]==s:
            count3+=1

    #print(county," ",countn," ", count1," ",count2," ",count3)
    total=county+countn
    if s=='yes':
        ans=(count1/county)*(count2/county)*(count3/county)*(county/total)
    else:
        ans=(count1/countn)*(count2/countn)*(count3/countn)*(countn/total)
    print(ans)
    return ans
```

```
data={1:['red','sports','domestic','yes'],
       2:['red','sports','domestic','no'],
       3:['red','sports','domestic','yes'],
       4:['yellow','sports','domestic','no'],
       5:['yellow','sports','imported','yes'],
       6:['yellow','suv','imported','no'],
       7:['yellow','suv','imported','yes'],
       8:['yellow','suv','domestic','no'],
       9:['red','suv','imported','no'],
       10:['red','sports','imported','yes']}
```

```
print("Enter input: ")
color=input("Color: ")
Type=input("Type: ")
origin=input("Origin: ")

a1=findprobability(color,Type,origin,'yes')
a2=findprobability(color,Type,origin,'no')
if a1>a2:
    print("YES")
else:
    print("NO")
```

```
Enter input:
Color: red
Type: suv
Origin: domestic
0.024
0.072
NO
```

