In [ ]:
```
# Rakibul Islam
# 151-15-5131
```

In [89]:
```
import numpy as np
```

In [90]:
```
outlook = np.array([0, 0, 1, 0, 1, 1, 0])
#sunny = 0 , cloudy = 1
temperature = np.array ([0, 1, 1, 1, 0, 0, 0])
#cold = 0, warm = 1
routine = np.array([0, 1, 0, 0 ,0, 1, 1])
#indoor = 0, outdoor = 1
coat = np.array ([0, 0, 0, 0, 1, 1, 1])
#no = 0, yes = 1
```

In [91]:
```
x = (1, 1, 1)
# cloudy , warm , outdoor
```

In [92]:
```
# c = yes

a_1 = np.argwhere (coat == 1)
print (a_1)
```

```
[[4]
 [5]
 [6]]
```

In [93]:
```
b_1 = outlook[4:]
print (b_1)
```

```
[1 1 0]
```

In [94]:
```
c_1 = temperature [4:]
print (c_1)
```

```
[0 0 0]
```

In [95]:
```
d_1 = routine [4:]
print(d_1)
```

```
[0 1 1]
```

In [96]:
```
e_1 =np.argwhere(b_1==1)
print(e_1)
```

```
[[0]
 [1]]
```

In [97]:
```
f_1 =np.argwhere(c_1==1)
print(f_1)
```

```
[]
```

In [98]:
```
g_1=np.argwhere(d_1==1)
print(g_1)
```

```
[[1]
 [2]]
```

In [99]:
```
w_1 = ((len(e_1)/len(a_1))*(len(f_1)/len(a_1))*(len(g_1)/len(a_1))*(len(a_1)/len(
print(w_1)
```

```
0.0
```

In [100]:
```
h = np.argwhere(outlook==1)
print(h)
```

```
[[2]
 [4]
 [5]]
```

In [101]:
```
i = np.argwhere(temperature==1)
print(i)
```

```
[[1]
 [2]
 [3]]
```

In [102]:
```
j = np.argwhere(routine==1)
print(j)
```

```
[[1]
 [5]
 [6]]
```

In [103]:
```
v_1=(len(h)/len(outlook))*(len(i)/len(temperature))*(len(j)/len(routine))
print(v_1)
```

```
0.07871720116618075
```

In [104]:
```
z_1 = (w_1/v_1)
print (z_1)
```

```
0.0
```

In [105]:
```
#  c = no
a_0 = np.argwhere (coat == 0)
print (a_0)
```

```
[[0]
 [1]
 [2]
 [3]]
```

In [106]:
```
b_0 = outlook[:4]
print (b_0)
```

```
[0 0 1 0]
```

In [107]:
```
c_0 = temperature [:4]
print (c_0)
```

```
[0 1 1 1]
```

In [108]:
```
d_0 = routine [:4]
print(d_0)
```

```
[0 1 0 0]
```

In [109]:
```
e_0 =np.argwhere(b_0 ==1)
print(e_0)
```

```
[[2]]
```

In [110]:
```
f_0 =np.argwhere(c_0==1)
print(f_0)
```

```
[[1]
 [2]
 [3]]
```

In [111]:
```
g_0=np.argwhere(d_0==1)
print(g_0)
```

```
[[1]]
```

In [112]:
```
w_0 = ((len(e_0)/len(a_0))*(len(f_0)/len(a_0))*(len(g_0)/len(a_0))*(len(a_0)/len(
print(w_0)
```

```
0.026785714285714284
```

In [113]:
```
v_0=(len(h)/len(outlook))*(len(i)/len(temperature))*(len(j)/len(routine))
print(v_0)
```

```
0.07871720116618075
```

In [114]:
```
z_0 = (w_0/v_0)
print (z_0)
```

```
0.3402777777777778
```

In [115]:
```
# condition
if (z_1<z_0):
    print ("no")
else :
    print("yes")
```

```
no
```