

In [1]:

```
import numpy as np
import pandas as pd
```

In [2]:

```
import scipy.stats as ss
```

比率に対する検定を行う。

Test for ratio

In [3]:

```
n=50
p=21/n
```

nが十分大きいため、正規分布を用いる。

Normal distribution is used since n is sufficiently large.

In [4]:

```
alpha=0.95
lower, upper = ss.norm.interval(alpha, loc=p, scale=np.sqrt(p*(1-p)/n),)
```

In [5]:

```
print(lower, upper)
```

```
0.28319507547452183 0.5568049245254781
```

Ans.

0.283, 0.557