In [4]:

```
# Suppose we want to estimate the average weight of an adult male in
# Mexico. We draw a random sample of 2,000 men from a population
# of 3,000,000 men and weigh them. We find that the average person in
# our sample weighs 200 pounds, and the standard deviation of the
# sample is 30 pounds. Calculate 94%,98%,96% confidence interval?
```

In [5]:

```
import pandas as pd
import numpy as np
from scipy import stats
from scipy.stats import norm
```

In [24]:

```
# Average weight of Adult in Mexico with 94% Confidence interval
stats.norm.interval(alpha=0.94,loc=200,scale=30/(2000**0.5))
```

Out[24]:

```
(198.738325292158, 201.261674707842)
```

In [25]:

```
# Average weight of Adult in Mexico with 98% Confidence interval
stats.norm.interval(alpha=0.98,loc=200,scale=30/(2000**0.5))
```

Out[25]:

```
(198.43943840429978, 201.56056159570022)
```

In [28]:

```
# Average weight of Adult in Mexico with 96% Confidence interval
stats.norm.interval(alpha=0.96,loc=200,scale=30/(2000**0.5))
```

Out[28]:

```
(198.62230334813333, 201.37769665186667)
```

In [ ]:

```

```