```
In [1]:  import numpy as np
         import pandas as pd
         import seaborn as sns
         import matplotlib.pyplot as plt

         from scipy.stats import norm,binom
```

```
In [2]:  1-norm.cdf(x=1850,loc=1800,scale=(100/np.sqrt(50)))

Out[2]:  0.00020347600872250293
```

```
In [3]:  1-norm.cdf((1850-1800)/((100/np.sqrt(50))))

Out[3]:  0.00020347600872250293
```

```
In [ ]:
```

```
In [4]:  1-norm.cdf(x=1900,loc=1800,scale=(100/np.sqrt(5)))

Out[4]:  0.0126736593387341
```

```
In [5]:  1-norm.cdf((1900-1800)/((100/np.sqrt(5))))

Out[5]:  0.0126736593387341
```

```
In [ ]:
```

```
In [6]:  (1900-1800)/((100/np.sqrt(5)))

Out[6]:  2.23606797749979
```

```
In [8]:  1-0.98713

Out[8]:  0.012870000000000048
```

```
In [14]:  1-binom.cdf(n=10,k=6,p=0.5)

Out[14]:  0.171875
```

```
In [12]:  1-binom.cdf(n=100,k=69,p=0.5)

Out[12]:  3.925069822796612e-05
```

```
In [13]:  1-binom.cdf(n=1000,k=699,p=0.5)

Out[13]:  0.0
```

```
In [121…  pd.value_counts(np.random.choice(["H","T"],size=100000))

Out[121]:  T    50112
           H    49888
           dtype: int64
```

```
In [122…  norm.ppf?
```

```
In [123…  norm.ppf(q=.99,loc=1800,scale=((100/np.sqrt(50))))

Out[123]:  1832.8995271426638
```

```
In [124…  norm.ppf(q=.95,loc=1800,scale=((100/np.sqrt(50))))

Out[124]:  1823.2617430735336
```

```
In [125…  norm.ppf(q=.99,loc=1800,scale=((100/np.sqrt(5))))

Out[125]:  1904.0374397133487
```

```
In [126…  norm.ppf(q=.95,loc=1800,scale=((100/np.sqrt(5))))

Out[126]:  1873.5600904580115
```

```
In [127…  norm.ppf(0.99)

Out[127]:  2.3263478740408408
```

```
In [128…  norm.ppf(0.95)

Out[128]:  1.6448536269514722
```

```
In [129…  norm.ppf(0.05)

Out[129]:  -1.6448536269514729
```

```
In [130…  norm.ppf(0.025)

Out[130]:  -1.9599639845400545
```

```
In [131…  norm.ppf(0.975)

Out[131]:  1.959963984540054
```

```
In [134…  1-norm.cdf(x=1850,loc=1800,scale=((100/np.sqrt(50))))

Out[134]:  0.00020347600872250293
```

```
In [135…  1-norm.cdf(x=1900,loc=1800,scale=((100/np.sqrt(5))))
```

```
Out[135]: 0.0126736593387341

In [ ]:
```