Let X ~ N(100, 202). Find two values, a and b, symmetric about the mean, such that the probability of the random variable taking a value between them is 0.99.

In [1]:
```
from scipy.stats import norm
import scipy.stats as stats
```

In [9]:
```
#Z value at 99.5 percentile is given as
stats.norm.ppf(0.995)
```

Out[9]:
```
2.5758293035489004
```

In [2]:
```
norm.ppf(0.995,100,20)
```

Out[2]:
```
151.516586070978
```

In [8]:
```
#Z value at 0.5th percentile is given as
stats.norm.ppf(0.005)
```

Out[8]:
```
-2.575829303548901
```

In [3]:
```
norm.ppf(0.005,100,20)
```

Out[3]:
```
48.483413929021985
```

In [12]:
```
1-norm.cdf(0.625)
```

Out[12]:
```
0.26598552904870054
```

In [ ]:
```

```