NORMAL DISTRIBUTION

SYMMETRIC

UNIMODAL

Area =1

$N(\mu,\sigma)$

68%

95%

99.7%

-3σ -2σ -1σ μ 1σ 2σ 3σ
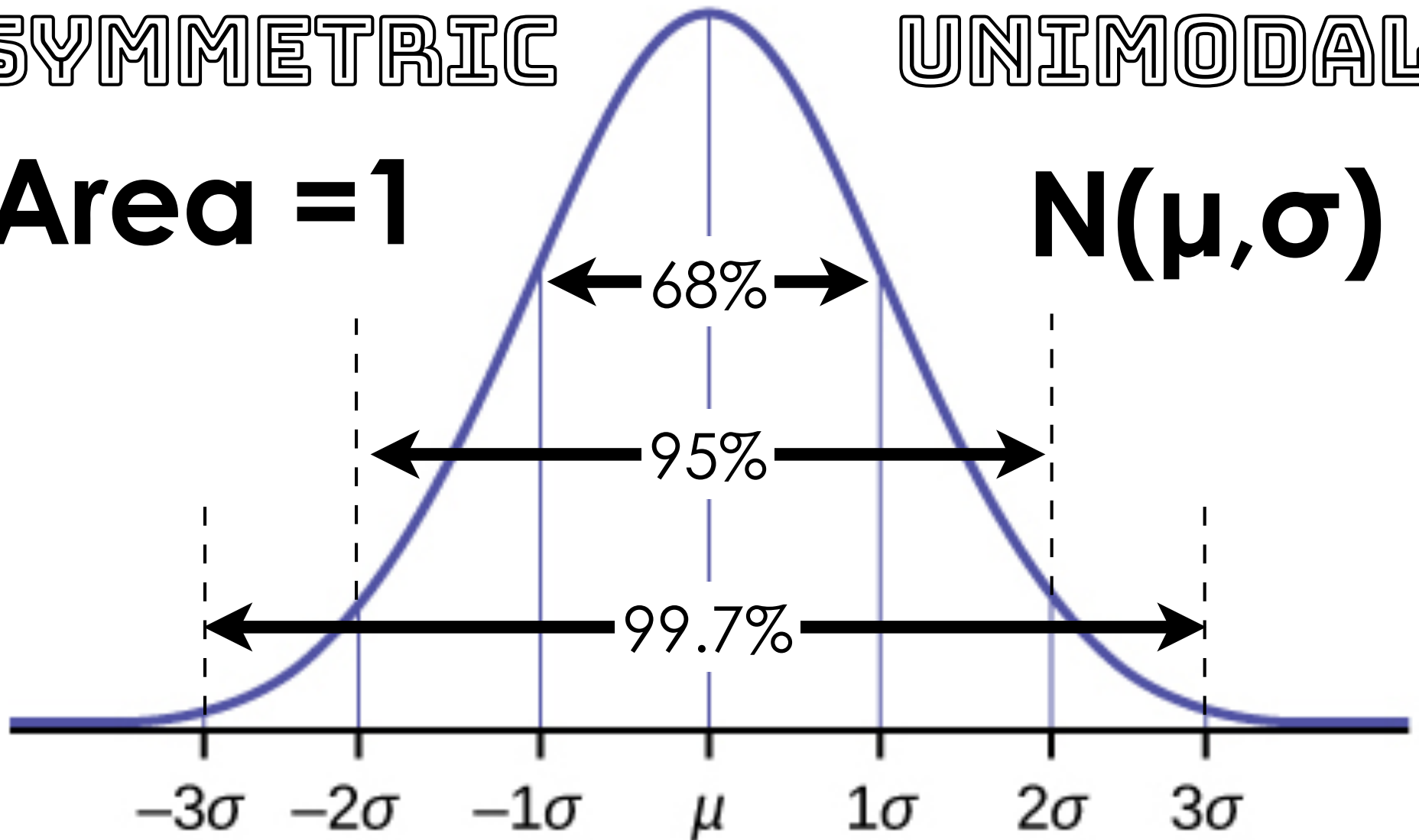
Normal Calculations

normalcdf(lower,upper,μ,σ)

x

%

invNorm(%,μ,σ)

Describing Location

Percentile

*p*th percentile
=
p% of data is less than

[Used to compare the location of individual in different distributions.]

z-Score

$$z = \frac{x - \mu}{\sigma}$$

INTERPRET:
Number of standard deviation from the mean

TRANSFORMING DATA

Add/Subtract

Measures of
CENTER

~~Measures of **SPREAD**~~

Multiply/Divide

Measures of
CENTER

Measures of
SPREAD