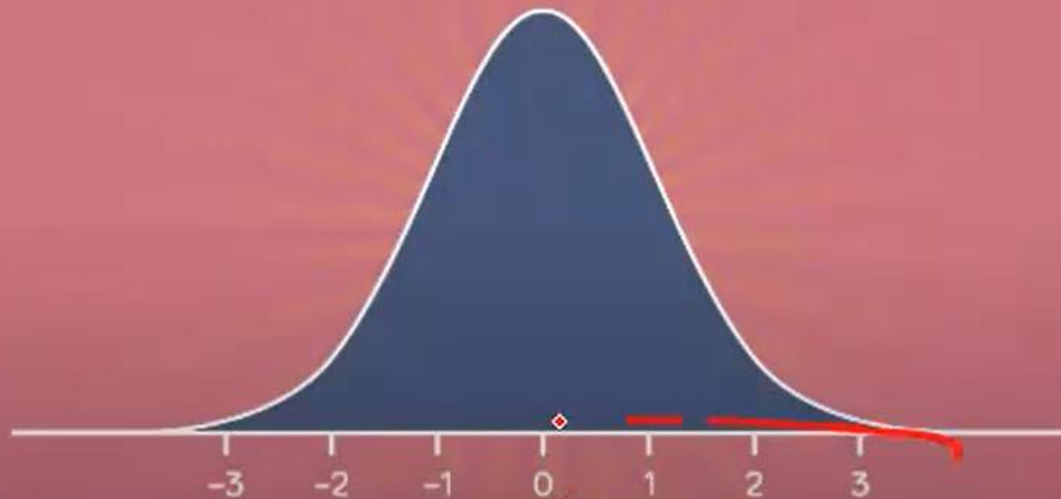


# Standard Normal Distribution

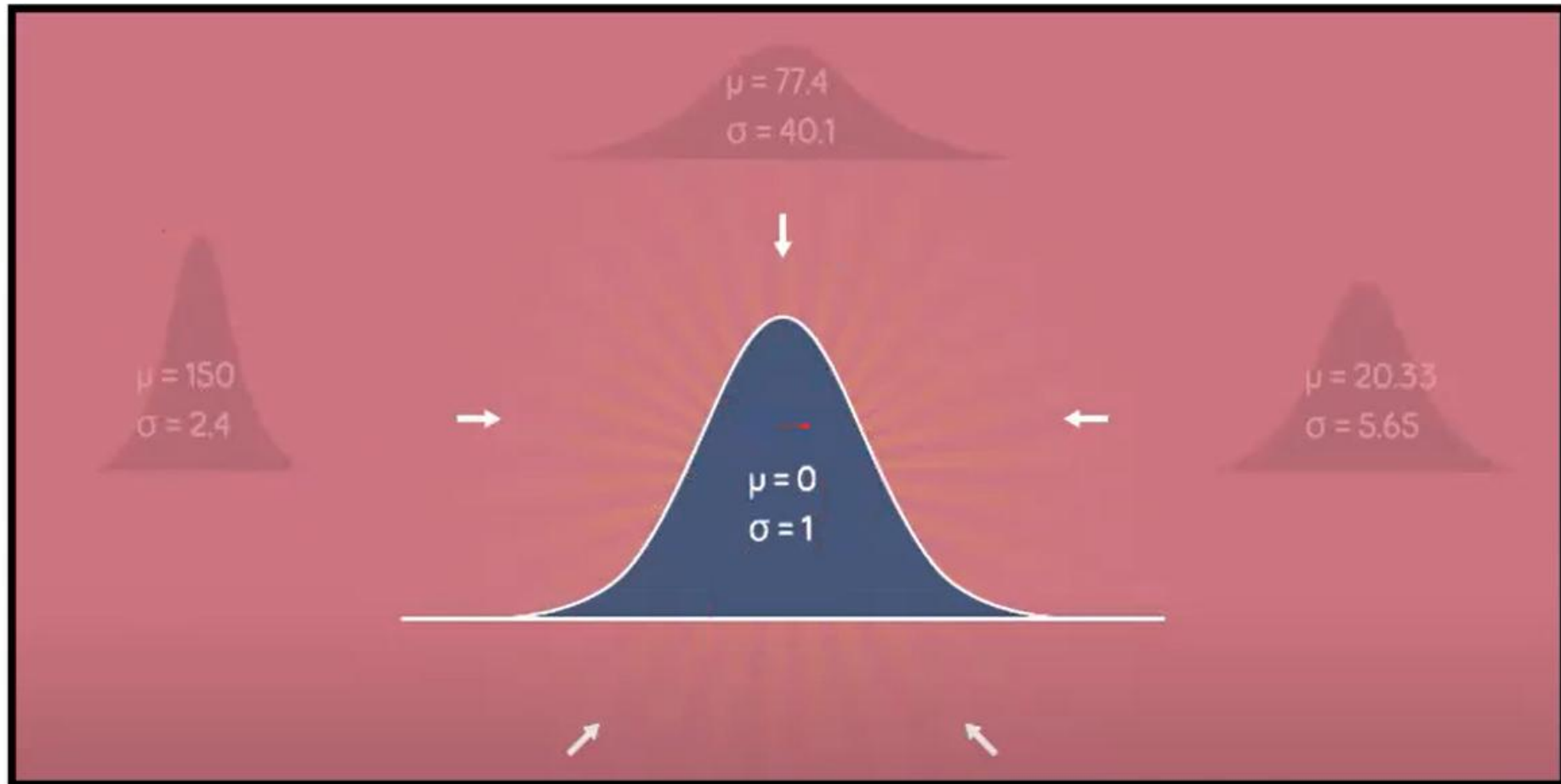
Converting the normal distribution to standard normal distribution

STANDARD NORMAL DISTRIBUTION



# Standard Normal Distribution

Converting the normal distribution to  
standard normal distribution



# Standard Normal Distribution

Converting the normal distribution to  
standard normal distribution

→ *stands*

$$\begin{array}{c} \text{OBSERVATION} \\ \downarrow \\ \text{Z-SCORE} \\ \downarrow \\ \mathbf{z} = \frac{\mathbf{x} - \mu}{\sigma} \end{array} \quad \begin{array}{l} \leftarrow \text{POPULATION MEAN} \\ \leftarrow \text{POPULATION STANDARD DEVIATION} \end{array}$$

STANDARDIZATION  
FORMULA

# Standard Normal Distribution

Converting the normal distribution to standard normal distribution

**EXAMPLE**

Suppose that we gathered data from last year's final chemistry exam and found that it followed a normal distribution with a mean of 60 and a standard deviation of 10.

