EQUATION OF THE NORMAL DISTRIBUTION

As the textbook noted, there is a family of normal distributions. These distributions are identical except for two parameters, the mean \( \mu \) and the standard deviation \( \sigma \). This Resource provides the formula for the normal distributions for your reference.

We will not refer to this formula again in this book. I include it as a Resource so that those who are mathematically inclined can see how \( \mu \) and \( \sigma \) determine the shape of the normal distribution. Others can omit this Resource without loss of continuity.

\[
f(x) = \frac{1}{\sigma \sqrt{2\pi}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}
\]