

## 6.6: Chapter Review

---

### 6.2: The Standard Normal Distribution

A  $z$ -score is a standardized value. Its distribution is the standard normal,  $Z \sim N(0, 1)$ . The mean of the  $z$ -scores is zero and the standard deviation is one. If  $z$  is the  $z$ -score for a value  $x$  from the normal distribution  $N(\mu, \sigma)$  then  $z$  tells you how many standard deviations  $x$  is above (greater than) or below (less than)  $\mu$ .

### 6.4: Estimating the Binomial with the Normal Distribution

The normal distribution, which is continuous, is the most important of all the probability distributions. Its graph is bell-shaped. This bell-shaped curve is used in almost all disciplines. Since it is a continuous distribution, the total area under the curve is one. The parameters of the normal are the mean  $\mu$  and the standard deviation  $\sigma$ . A special normal distribution, called the standard normal distribution is the distribution of  $z$ -scores. Its mean is zero, and its standard deviation is one.

---

6.6: Chapter Review is shared under a [not declared](#) license and was authored, remixed, and/or curated by LibreTexts.