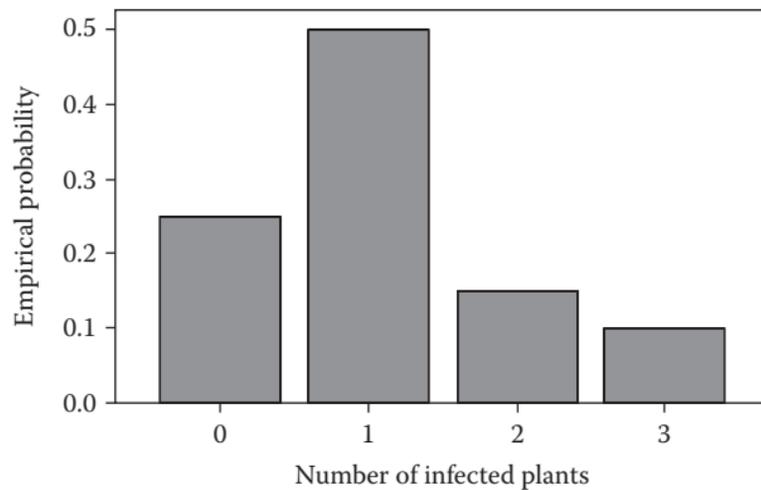


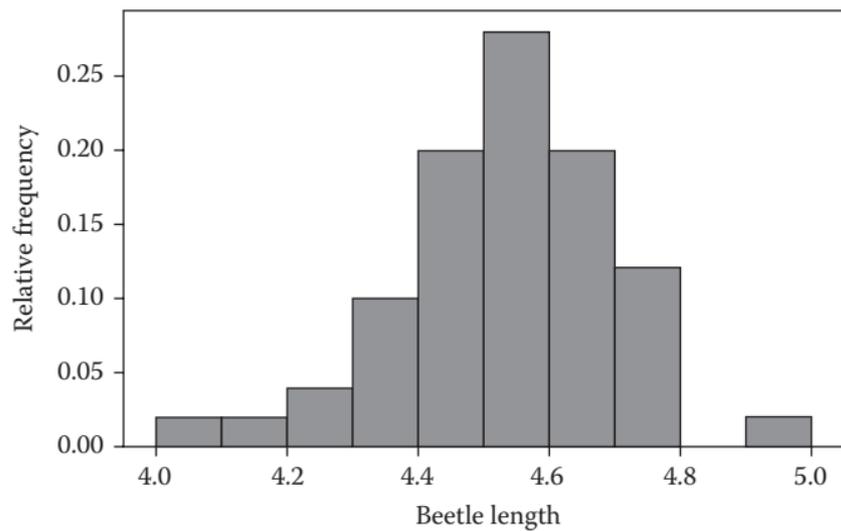
**FIGURE 2.1**

(a) Cumulative distribution function for plant infection data (Example 2.2A) and (b) with 0.5 quantile marked (Example 2.2B).



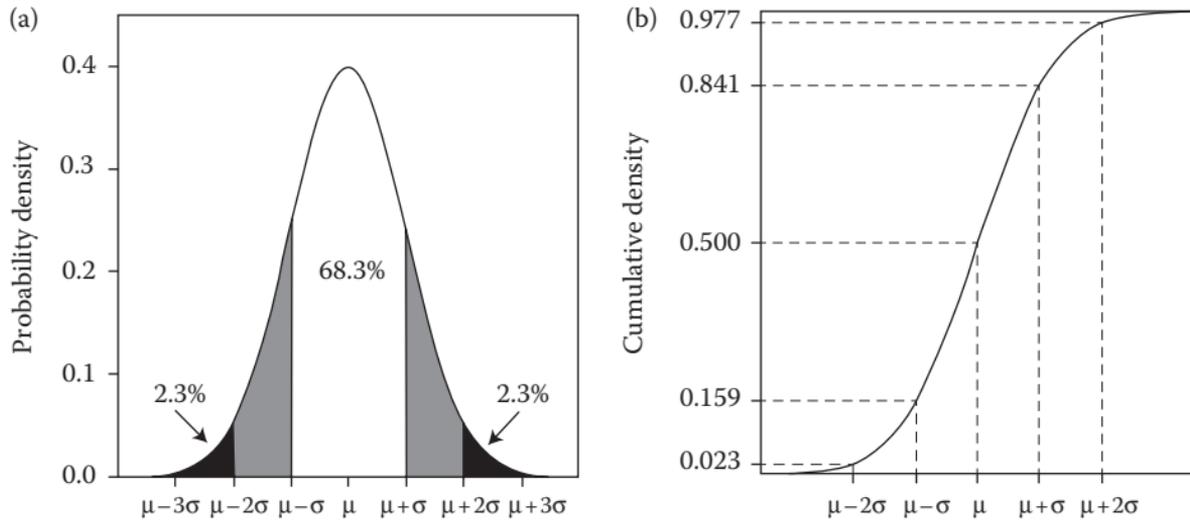
**FIGURE 2.2**

Bar chart showing the empirical probability distribution of the number of infected plants in the plant infection trial. Three plants were tested in each of 20 pots (Example 2.2D).



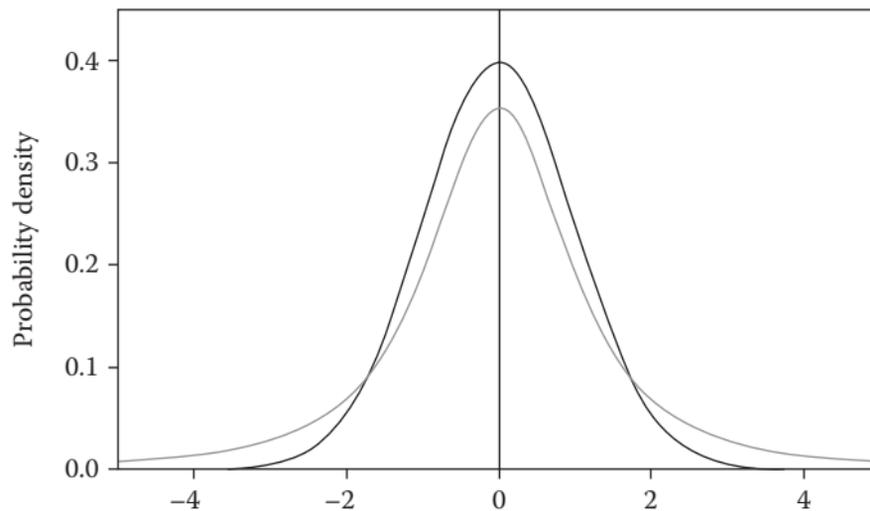
**FIGURE 2.3**

Histogram of relative frequencies for lengths (mm) of willow beetles from a sample of size 50 (Example 2.3A).



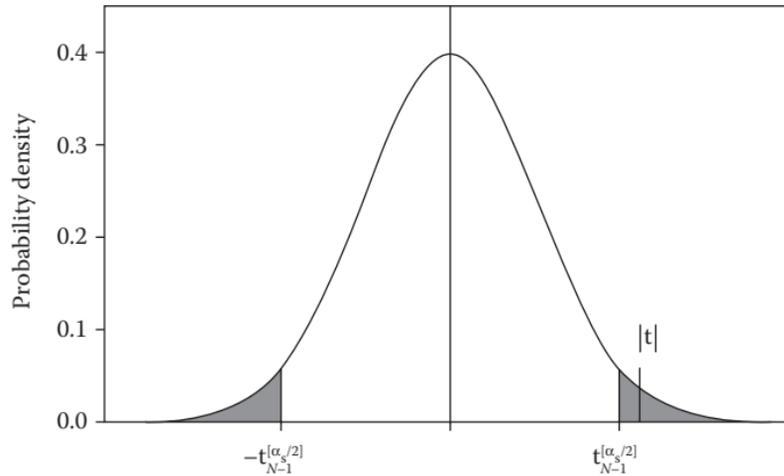
**FIGURE 2.4**

(a) PDF and (b) CDF of a Normal random variable with mean  $\mu$  and standard deviation  $\sigma$ .



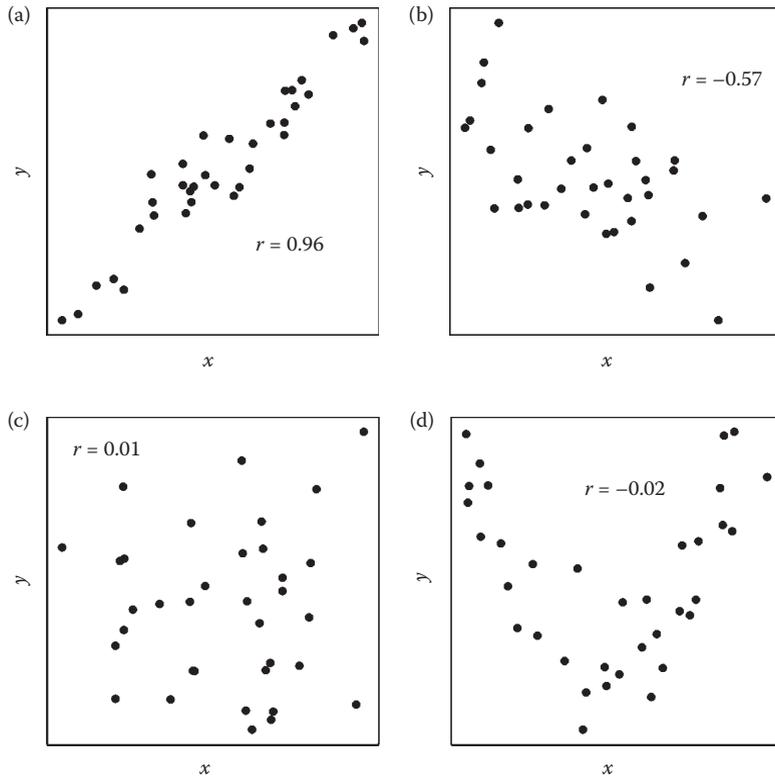
**FIGURE 2.5**

PDF for standard Normal distribution ( $\mu = 0$ ,  $\sigma = 1$ , black line) and t-distribution with 2 df (grey line).



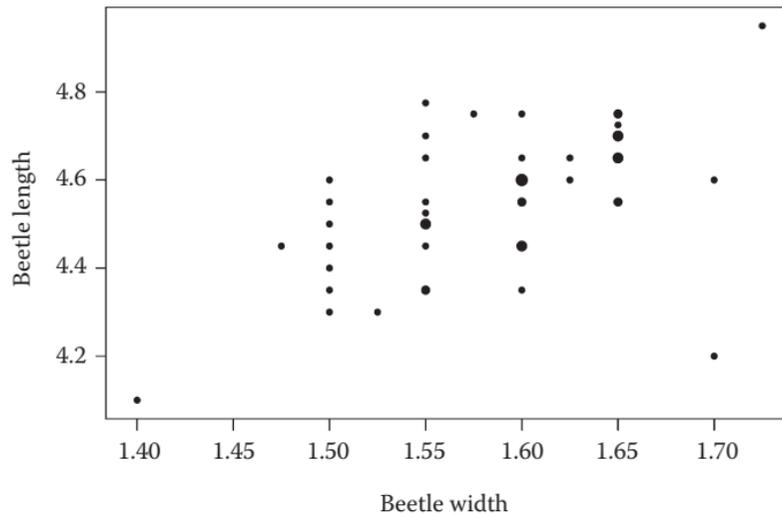
**FIGURE 2.6**

Critical regions for a two-sided one-sample t-test with probability level  $\alpha_s$ . Shaded area covers  $100\alpha_s\%$  of distribution containing the most extreme values.  $|t|$  is the absolute value of an observed t-statistic greater than the critical value at significance level  $\alpha_s$ .



**FIGURE 2.7**

Scatter plots illustrating correlation patterns between two variables: (a) strong positive correlation; (b) moderate negative correlation; (c) uncorrelated and unrelated variables; (d) uncorrelated but related variables.



**FIGURE 2.8**

Length (mm) plotted against width (mm) for 50 willow beetles (Example 2.3B). Area of points is proportional to the number of observations at that position.