

## Glossary

**x-axis** The horizontal axis in a Cartesian coordinate system.

**x-intercept** The place where a graph passes through the  $x$ -axis.

**y-axis** The vertical axis in a Cartesian coordinate system.

**y-intercept** The place where a graph passes through the  $y$ -axis. For a line

$$y = mx + b,$$

it is the point  $(0, b)$ .

**Yard** A linear measure in the United States system; it has the same length as 3 ft.

**Zero** The number that separates the positive and negative numbers; it is also called the *identity element* for addition; that is, it satisfies the property that

$$x + 0 = 0 + x = x$$

for all numbers  $x$ .

**Zero matrix** A matrix with all entries equal to 0.

**Zero multiplication** If  $a$  is any real number, then  $a \cdot 0 = 0 \cdot a = 0$ .

**Zero-one matrix** A square matrix in which the entries symbolize the occurrence of some facet or event with a 1 and the nonoccurrence with a 0.

**Zero-product rule** If  $a \cdot b = 0$ , then either  $a = 0$  or  $b = 0$ .

**z-score** A measure to determine the distance (in terms of standard deviations) that a given score is from the mean of a distribution.