



# Reading: Glossary terms from module 1

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## Terms and definitions from Course 5, Module 1

**Absolute values:** (Refer to **observed values**)

**Causation:** A cause-and-effect relationship where one variable directly causes the other to change in a particular way

**Dependent variable (Y):** The variable a given model estimates

**Explanatory variable:** (Refer to **independent variable**)

**Independent variable (X):** A variable whose trends are associated with the dependent variable

**Intercept (constant  $B_0$ ):** The y value of the point on the regression line where it intersects with the y-axis

**Line:** A collection of an infinite number of points extending in two opposite directions

**Linear regression:** A technique that estimates the linear relationship between a continuous dependent variable and one or more independent variables

**Link function:** A nonlinear function that connects or links the dependent variable to the independent variables mathematically

**Logistic regression:** A technique that models a categorical dependent variable based on one or more independent variables

**Loss function:** A function that measures the distance between the observed values and the model's estimated values

**Model assumptions:** Statements about the data that must be true to justify the use of a particular modeling technique

**Negative correlation:** An inverse relationship between two variables, where when one variable increases, the other variable tends to decrease, and vice versa

**Observed values:** The existing sample of data, where each data point in the sample is represented by an observed value of the dependent variable and an observed value of the independent variable

**Outcome variable:** (Refer to **dependent variable**)

**Positive correlation:** A relationship between two variables that tend to increase or decrease together

**Predictor variable:** (Refer to **independent variable**)

**Regression analysis:** A group of statistical techniques that use existing data to estimate the relationships between a single dependent variable and one or more independent variables

**Regression coefficient:** The estimated betas in a regression model

**Regression models:** (Refer to **regression analysis**)

**Response variable:** (Refer to **dependent variable**)

**Slope:** The amount that y increases or decreases per one-unit increase of x

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