Pennsylvania Mathematics

Algebra 1 - Module 2

Functions

A1.2.1.1 Analyze and/or use patterns or relations

- A Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically. A1.2.1.1.1
- B Determine whether a relation is a function, given a set of points or a graph. A1.2.1.1.2
- C Identify the domain or range of a relation (may be presented as ordered pairs, a graph, or a table). A1.2.1.1.3

A1.2.1.2 Interpret and/or use linear functions and their equations, graphs, or tables.

- A Create, interpret, and/or use the equation, graph, or table of a linear function. A1.2.1.2.1
- B Translate from one representation of a linear function to another (i.e., graph, table, and equation). A1.2.1.2.2

Coordinate Geometry

A1.2.2.1 Describe, compute, and/or use the rate of change (slope) of a line.

- A Identify, describe, and/or use constant rates of change. A1.2.2.1.1
- B Apply the concept of linear rate of change (slope) to solve problems. A1.2.2.1.2
- C Write or identify a linear equation when given • the graph of the line, • two points on the line, or • the slope and a point on the line. A1.2.2.1.3
- D Determine the slope and/or y-intercept represented by a linear equation or graph A1.2.2.1.4

A1.2.2.2 Analyze and/or interpret data on a scatter plot.

- A Draw, identify, find, and/or write an equation for a line of best fit for a scatter plot. A1.2.2.2.1

Data Analysis

A1.2.3.1 Use measures of dispersion to describe a set of data.

- A Calculate and/or interpret the range, quartiles, and interquartile range of data. A1.2.3.1.1

A1.2.3.2 Use data displays in problem- solving settings and/or to make predictions.

- A Estimate or calculate to make predictions based on a circle, line, bar graph, measure of central tendency, or other representation. A1.2.3.2.1
- B Analyze data, make predictions, and/or answer questions based on displayed data (box-and- whisker plots, stem-and-leaf plots, scatter plots, measures of central tendency, or other representations). A1.2.3.2.2
- C Make predictions using the equations or graphs of best-fit lines of scatter plots. A1.2.3.2.3

A1.2.3.3 Apply probability to practical situations.

- A Find probabilities for compound events (e.g., find probability of red and blue, find probability of red or blue) and represent as a fraction, decimal, or percent. A1.2.3.3.1