

Mathematics and Science Directing Words

The following words are specific in meaning.

Algebraically	Using mathematical procedures that involve letters or symbols to represent numbers. All algebraic steps to solve the equation must be shown in the solution.
Determine	Find a solution, to a specified degree of accuracy, to a problem by showing appropriate formulas, procedures, and calculations.
Explain	Make clear what is not immediately obvious or entirely known; give the cause of or reason for; make known in detail.
Graphically	Using a drawing that is produced electronically or by hand and that shows a relation between certain sets of numbers. When a graphical solution is used in solving an equation or system of equations, students should include the function or functions graphed, a clear graph (with scale and labelled axes) showing critical points; i.e. x and y intercepts of the graph, the x and y coordinate of the points of intersection.
Justify/Show How	Show reasons for or give facts that support a position
Prove	Establish the truth of validity of a statement for the general case by giving factual evidence or logical argument
Sketch	Provide a drawing (with scale and labels) that represents the key features of an object or graph; i.e. x and y intercepts of the graph, the x and y coordinate of the points of intersection.
Solve	Give a solution for a problem; i.e., explanation in words and/or numbers
Verify	Establish, by substitution for a particular case or by geometric comparison, the truth of a statement