

Some Notes on Usage: Derive, Differentiate, Etc.

Calculus 11, Veritas Prep.

A **derivation** is a type of proof; for our purposes, it's synonymous with "proof," since all of the proofs you've seen have been derivations. To prove something in the manner of a derivation is **to derive** it.

A **derivative**, on the other hand, is the slope of a function. To compute the derivative of a function is **to differentiate** it; we also often speak of "taking" a derivative: *I took the derivative of x^2 and got $2x$. I differentiated x^2 and got $2x$.* The adjectival form of "derivative" is **differential**: *We are studying differential calculus this year.*