

Glossary of Terms

Definition A precise formulation of the meaning of a term or formula.

Example A specific illustration of a mathematical concept, via specific values/cases for the concept's entities.

Theorem A true mathematical statement with a proof.

Proof A precise sequence of logical arguments that establishes the veracity of a claim. Every step in a proof must follow from already-established facts or from standard logical reasoning.

Lemma A mathematical statement whose main purpose is in proving other statements (usually theorems). Lemmas are often stepping stones towards particularly difficult theorems.

Corollary A mathematical statement that is a relatively direct consequence of a theorem.

Conjecture A mathematical statement whose veracity has not been established yet.

Question An open-ended mathematical statement. We would typically want to consider whether a question is true or false, at which point we may formulate it as a conjecture.