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Mathematical Reasoning: Writing and Proof is designed to be a text for the first course in the college mathematics curriculum that introduces students to the processes of constructing and writing proofs and focuses on the formal development of mathematics.

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  A proof in mathematics is a convincing argument that some mathematical statement is true. A proof should contain enough mathematical detail to be convincing to the person(s) to whom the proof is addressed. In essence, a proof is an argument that communicates a mathematical truth to another person (who has the appropriate mathematical
A proof must use correct, logical reasoning and be based on previously established results.

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