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Thomas C Hales*, Mathematics Department, Thackeray Hall, University of Pittsburgh,
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A theorem is formally verified if every step of the proof has been checked at the level of the primitive inference rules of logic and the foundational axioms of mathematics. Because of the number of steps involved, formal proofs are generally carried out by computer.

This presentation will describe some of the major theorems that have been formally verified in recent years. Looking forward, we might imagine the day when formal verification is in widespread use by mathematicians and software systems. (Received September 22, 2015)