existential theorem

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An *existential theorem* is a theorem which exists.

In general, there are two ways to prove an existential theorem. The most convincing method is a constructive proof, and another common method is an existential proof. The reason that a constructive proof is most convincing is that, after reading such a proof, readers can actually get their hands on the mathematical in question. In some cases, however, constructing the mathematical is difficult, if not impossible. In this case, an existential proof may be the only method for proving an existential theorem. An example of this is the primitive element theorem.