

Theoric Step

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I shall term the step of so introducing into a demonstration a new idea not explicitly or directly contained in the premisses of the reasoning or in the condition of the proposition which gets proved by the aid of this introduction, a theoric step. Two considerable advantages may be expected from such a step besides the demonstration of the proposition itself. In the first place, since it is a part of my definition that it really aids the demonstration, it follows that without some such step the demonstration could not have been effected, or at any rate only in some very peculiar way. Now to propositions which can only be proved by the aid of theoric steps (or which, at any rate, could *hardly* otherwise be proved), I propose to restrict the application of the hitherto vague word "*theorem*," calling all others, which are deducible from their premisses by the general principles of logic, by the name of *corollaries*. A theorem, in this sense, once it is proved, almost invariably clears the way to the corollarial or easy theorematic proof of other propositions whose demonstrations had before been beyond the powers of the mathematicians. That is the first secondary advantage of a theoric step. The other such advantage is that when a theoric step has once been invented, it may be imitated, and its analogues applied in proving other propositions.