

Theorems And Proofs

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1 Introduction

Theorems can easily be defined

Theorem 1.1. *Let f be a function whose derivative exists in every point, then f is a continuous function.*

Theorem 1.2 (Pythagorean theorem). *This is a theorem about right triangles and can be summarised in the next equation*

$$x^2 + y^2 = z^2$$

And a consequence of theorem 1.2 is the statement in the next corollary.

Corollary 1.2.1. *There's no right triangle whose sides measure 3cm, 4cm, and 6cm.*

You can reference theorems such as 1.2 when a label is assigned.

Lemma 1.3. *Given two line segments whose lengths are a and b respectively there is a real number r such that $b = ra$.*

Beweis. To prove it by contradiction try and assume that the statement is false, proceed from there and at some point you will arrive to a contradiction. ■

Unnumbered theorem-like environments are also possible.

Remark. This statement is true, I guess.

And the next is a somewhat informal definition

Definition 1.1. Fibration A fibration is a mapping between two topological spaces that has the homotopy lifting property for every space X .