## 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 rectangle 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.