

Mathematics in English

1 Document

From “*Elements of Geometry*” by J. Hamblin Smith, *Book I*

AXIOMS

- I. Things which are equal to the same thing are equal to one another.
- II. If equals be added to equals the wholes are equal.
- III. If equals be taken from equals, the remainders are equal.
- IV. If equals and unequals be added together, the wholes are unequal.
- V. If equals be taken from unequals, or unequals from equals, the remainders are unequal.
- VI. Things which are double of the same thing, or of equal things, are equal to one another.
- VII. Things which are halves of the same thing, or of equal things, are equal to one another.[...]

Euclid develops the science of Geometry in a series of Propositions, some of which are called Theorems and the rest Problems, though Euclid himself makes no such distinction.

By the name *Theorem* we understand a truth, capable of demonstration or proof by deduction from truths previously admitted or proved.

2 Questions

1. Re-write the seven axioms using mathematical symbols.
2. Explain the difference between a definition, an axiom and a theorem.