

Definitions

Def. A triple (a, b, c) is a Pythagorean Triple provided $(a, b, c) \in \mathbb{N}^3$ with $a < b < c$ and $a^2 + b^2 = c^2$. §1.2
p29
Def. Three natural numbers are called consecutive natural numbers if they can be written in the form $m, m + 1$, and $m + 2$, where $m \in \mathbb{N}$. §3.1
p102

Exercise. A variant of Exercise 3.1.21a.

§3.1
p102

Determine all Pythagorean triples consisting of three consecutive natural numbers.

(State a theorem and prove it.)