# THE LAST THEOREM OF FERMAT, IN ELEMENTARY WAY 

## Nicola Fragnito

Received June 1, 2013

## Abstract

In this paper, the author works only through the factorization in factors, with the proceeding for absurd, that is, if $x, y, z$ are prime among them, under the hypothesis

## Pioneer Journal of

 Algebra, NumberTheory and its Applications
that the tern of integers $(x, y, z)$ were a solution of the equation

$$
x^{n}+y^{n}=z^{n},
$$

then he obtains a nonsense. Three cases are separated:

1. $n$ is power of 2 ;
2. $n$ is odd;
3. $n$ is product of a power of 2 for an odd number.

For a better understanding also the Pythagorean set of three numbers is reported.

Keywords and phrases: odd, even, factors.

