Z_2

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Entry type	Definition
Classification	msc 03F35
Synonym	Z
Synonym	Z2
Defines	second order arithmetic

Z_2 is the full system of second order arithmetic, that is, the full theory of numbers and sets of numbers. It is sufficient for a great deal of mathematics, including much of number theory and analysis.

The axioms defining successor, addition, multiplication, and comparison are the same as those of PA. Z_2 adds the full induction axiom and the full comprehension axiom.