

Peano Arithmetic

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Notes to the instructor

The project is designed for an upper level undergraduate course in mathematical logic. Although the project is relatively short, some of the exercises are not as easy as they appear. Instructors may wish to spend some class time on discussing how formal proofs should be conducted, and also provide some additional assistance with completing some of the exercises. The last part of the project assumes that students are familiar with the compactness and Löwenheim-Skolem theorems. I usually assign the project at the end of the semester, after covering the completeness, Löwenheim-Skolem, and compactness theorems. The entire project usually takes about three to four weeks. The notation Peano uses in his treatise is slightly outdated from today's point of view. Instructors may wish to spend some time comparing Peano's notation to the contemporary one.

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