maticians, rather than read about it. It is certainly a recommendation that can be applied to the work of André Weil.

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Raymond M. Smullyan, *Gödel's Incompleteness Theorems*, New York, New York, Oxford University Press, Inc., 1992. xiii + 139 pp.

Reviewed by

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Certainly, Gödel's work on incompleteness enjoys one of the highest profiles in mathematical logic. Not only are his First and Second Incompleteness Theorems familiar to every logician, but through various popularizations this material has managed to impinge on the general consciousness. (And without even needing cute computer-generated pictures!)

Smullyan's *Gödel's Incompleteness Theorems* is an introduction, but — unlike several other of his books — not a popularization for the public at large. To quote from the Preface, the book is intended "for the general mathematician, philosopher, computer scientist and any other curious reader who has at least a nodding acquaintance with the symbolism of first-order logic...and who can recognize the logical validity of a few elementary formulas. A standard one-semester course in mathematical logic is more than enough [background]." On the other hand, again quoting from the Preface, "There is a good deal in [Chapter VII] that should interest the expert as well as the general reader." Smullyan lives up to his aims. The book provides a highly accessible, user-friendly introduction to incompleteness. At the same time the treatment is rigorous and contains material that even a professional logician can find informative and interesting.

Smullyan goes right to the heart of the matter in Chapter I by stripping incompleteness to its essentials. What basic features does a language need for an incompleteness theorem? Using these features, how does one prove such a theorem via diagonalization? In a sense, much of the rest of the book consists of an elaboration of the first chapter, examining how the abstract incompleteness scenario plays itself out in progressively more sophisticated contexts. Smullyan discusses, in turn: