

The Background of the Tardy Bus Problem

*Handout**Are you motivated?!*

From the Introduction to **WFF 'N PROOF**, The Game of Modern Logic, by Layman E. Allen:

WFF 'N PROOF is grounded in the belief that learning ought to be fun — a conviction that allowing youngsters to find joy in learning bears fruit throughout the rest of their lives.

The attitude of a learner towards an activity is important; it crucially affects how well he will learn that activity. The primary aim of **WFF 'N PROOF** is to encourage a favorable attitude towards symbol-manipulating activities in general and, incidentally, to teach something about mathematical logic and provide practice in abstract thinking.

In the course of becoming a skillful player of **WFF 'N PROOF**, a person will learn something about the nature of propositional calculus. He will learn how to recognize well-formed formulas (WFFs) and how to construct proofs of theorems in propositional calculus. The knowledge of logic derived from playing **WFF 'N PROOF** will improve his ability to analyze problems like the *Tardy Bus Problem*. Beginners may wish to gain some measure of their own present ability to reason effectively by working through [this trickier-than-seems-at-first problem]. (WARNING: Even adults answer most of the questions posed in this problem incorrectly before they have learned to play **WFF 'N PROOF**. For good **WFF 'N PROOF** players, however, such problems are easy.)

The *Tardy Bus Problem* has been included to show that ordinary intuition is not a sufficient tool for solving some not-so-extraordinary problems that can be solved easily by the use of symbolic logic. The wording of the *Tardy Bus Problem* is patterned after parts of the wording of the United States Internal Revenue Code. The unfortunate lack of some useful standardization in the way that ideas are expressed in the Code make it an unusually cumbersome document to read and understand easily. Perhaps some readers of the *Tardy Bus Problem* will better appreciate why the Code is sometimes referred to as the *Infernal Revenue Code*!

The reason for putting the *Tardy Bus Problem* in the early pages of the **WFF 'N PROOF** manual was to motivate a reader who got all the answers wrong – lead him (or her) to the conclusion that it would be useful to learn some logic!