ARISTOTLE'S SYLLOGISTIC

PAUL THOM

I present a syllogistic system simpler and truer to the Aristotelian text than that of [8].

1 *Primitive symbols*   The Greek capitals:

$$AB\Gamma\Delta EZH\Theta KMN\Xi\Pi P\Sigma$$

(possibly with numerical subscripts) are *term-variables*. The mnemonic vowels:

$$aeio$$

are *functors* which when superscripted to a pair of term-variables form a *protasis*:

   AB^a (A belongs to all B) AB^e (A belongs to no B)
   AB^i (A belongs to some B) AB^o (A does not belong to some B).

The first variable in a protasis is its *predicate*, the second its *subject*. The *a*- and *e*-protases with the same variables in the same order are *contraries* ([3], B8, 59b8-11; B15, 63b23-30). The *a*- and *o*-protases (also *e*- and *i*-protases) with the same variables in the same order are *contradictories* ([3], *ibid.*).

2 *Formation rules*   The theses of the system take such forms as:

   If A belongs to some B, B belongs necessarily to some A ([3], A2, 25a20-21).

   If A belongs to no B and B belongs to some Γ, necessarily A does not belong to some Γ ([3], A4, 26a25-27).

The one remaining primitive symbol, then, of Aristotle's syllogistic is a connective:

   If . . . then necessarily ___

which joins a number of antecedent protases to a consequent one. (If there