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A NOTE ON INDEPENDENCE

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Acquaintance with [1] is presupposed and we shall use its numeration of the axioms. At the end of the paper Thacher Robinson states:

"It is interesting to note that the author has verified that *no normal* truth-table in ≤ 5 truth values will suffice for the independence of (2.2). Bernays constructed for the author a six-valued normal truth-table (subsequently lost) which also shows the independence of (2.2)."

The following (see p. 411) six-valued normal truth-table suffices for the purpose. The designated values are 0 and 1. (2.2) takes the value 2 if $p = 0$, $q = 4$ and $r = 2$. See also [2] and [3] where five and six-valued normal truth-tables are used to establish the independence of (2.1) and (2.2) respectively but in a different context, i.e., the connectives used besides implication to obtain formulations of the propositional calculus are not the same as those in [1].

REFERENCES

[1] Robinson, T. Thacher, "Independence of two nice sets of axioms for the propositional calculus," *The Journal of Symbolic Logic*, vol. 33 (1968), pp. 265-270.

[2] Shukla, A., "A set of axioms for the propositional calculus with implication and converse non-implication," *Notre Dame Journal of Formal Logic*, vol. 6 (1965), pp. 123-128.

[3] Shukla, A., "A set of axioms for the propositional calculus with implication and non-equivalence," *Notre Dame Journal of Formal Logic*, vol. 7 (1966), pp. 281-286.

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TRUTH TABLE

A	B	$A \supset B$	$A \vee B$	$A \& B$	$\sim A$	f
0	0	0	0	0	4	5
	1	0	0	0		
	2	2	0	5		
	3	3	0	5		
	4	3	0	5		
	5	5	0	5		
1	0	0	0	0	4	
	1	0	0	0		
	2	2	0	5		
	3	3	0	5		
	4	5	0	5		
	5	5	0	5		
2	0	0	0	5	3	
	1	0	0	5		
	2	0	5	5		
	3	3	5	5		
	4	3	5	5		
	5	0	5	5		
3	0	0	0	5	2	
	1	0	0	5		
	2	2	5	5		
	3	0	5	5		
	4	2	5	5		
	5	0	5	5		
4	0	1	0	5	0	
	1	1	0	5		
	2	1	5	5		
	3	1	5	5		
	4	1	5	5		
	5	1	5	5		
5	0	0	0	5	0	
	1	0	0	5		
	2	0	5	5		
	3	0	5	5		
	4	0	5	5		
	5	0	5	5		