
Inconsistent Mathematics

These are ERRATA, CORRECTIONS and ADDITIONS to the book

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(Last changed 3 Feb 1999)

- (1) p.15, 6 up, 'intentional' should be 'intensional'.
- (2) p.16 Def 2.2 omits an axiom, eg. $(A \rightarrow B) \rightarrow (B \rightarrow A)$ suffices
nb. its source Meyer & Mortensen 'Inconsistent Models for Relevant Arithmetics', JSL 1984, also omits the axiom
- (3) p.28, line 5, = should be + .
- (4) p.34 Add "the" before "axioms" in line 10
- (5) p.30, line 8, 'holds' should be 'hold'.
- (6) p.31, Prop 2.19, $\{0,1,..m-1\}$ should be $\{2,3,..m-1\}$
nb. the case $t=1$ is for free in $R\#$.
- (7) p.35 ,(1), should be 'A number other than zero is finite iff ..'
- (8) p.35 ,(3), second line, 'infinite' should be 'is infinite iff not unity.'
- (9) p.35 ,line 14, '=0; but' should be 'is undefined; but'
- (10) p.36, end of Prop 3.2 is a little brief, but note that the denials of all equations are all either T or B, so hold, and Extendability does the rest.
- (11) p.38, line 13 , last word, 'classical' should be 'classically'
- (12) p.42 , top line, $\text{mod } p$ should be $\text{mod } p$, and last symbol, $\}$ should be $\}$.
- (13) p.45, line 12, the expression should have a (in front, and the small) after the second subscripted 4 should be a large).
Same page, the expression on line 7 up: the part in brackets after sigma should be the binomial coefficient k_1+k_3 over i .
Same page, line 3 up: the d_1d_3 should be in brackets (d_1d_3).
- (14) p.46, bottom line, add 'with d_1 ' before the first $[d_1]$.
- (15) p.49, line 3, delete the last word 'if'.
- (16) p.50, formula below 'following', add right) at end.
- (17) p.53, bottom line, replace 'R' by '|R', and right) after 0.
- (18) p.54, top line, 'D' should be 'D1', ie. D with 1 subscripted.
- (19) p.56, line 3, insert 'in the proof of' before 'Proposition 5.10'.
- (20) p.65, line beginning '(2)', insert 'classical' before 'left hand'.
- (21) p.66, line 3 up, delete 'Boolean'.
- (22) p.67, lines 5 up and 4 up, replace the less than or equal signs by less than signs except for the first pair on the left hand end of line 5 up.
- (23) p.70 bottom and second bottom lines, on each line the first $(t_2)^{-2}$ should be $(t_2)^{-1}$
- (24) p.75, line 12, delete 'and only if' .
- (25) p.83, line 7 up, replace ' $L(x_1,x_2,x_3)$ ' by ' $L(a_1,a_2,a_3)$ ' and replace ' $(\exists a_1,a_2,a_3)$ ' by ' $(\exists x_1,x_2,x_3)$ '.
- (26) p.85, line 13, ' $\{p+1,.. \}$ ' should be ' $\{p,p+1,.. \}$ '; also 6 up, ' $\forall 3F$ ' should be ' $\forall 3(F)$ '
- (27) p.89, line 3, insert left (between [and '1 mod p'; also line 4 up, insert 'except for 0' between 'number' and 'is'.
- (28) p.94 conditions (6) and (6'), change I(O) to O throughout.
- (29) p.96, line 5, add comma after the first O+, and delete 'a' before 'closed'. Line 10-11, add comma after "discrete" and add "and R is null or R is identity" after "indiscrete topology".
- (30) p.101, line 11, insert 'be' between 'to' and 'common'.
- (31) p.103, (iii) , '<=' , ie. 'less than or equal to', should be '='. nb. the correct versions are proved on p.108. Also, in (v) the second union sign should be an intersection sign.
- (32) p.105, line 5 of type, " $\chi \bar{\chi} = 1$ " is better rendered as " $\chi \bar{\chi}(x) = 1$ "; also fourth line of type up, reverse order of last two words.
- (33) p.109, third para line 2, "g-f" is better rendered "f-g";also line 6 up, 'lattice' should be 'bounded lattice'.
- (34) p.110 lines 3 and 4 under the second diagram, $\langle f,g \rangle_0$ should be $\langle f,g \rangle_p$ in two places.
- (35) p.125, 5 up, 3.4 should be 3.3.
- (36) p.126, Prop 13.1 is slightly incorrect. Part (1) requires the Double Negation law $\neg \neg A \leftrightarrow A$ to hold as well, in order for the result to be correct. The remainder of the results are correct except that Part (6) requires Th to be both nontrivial and non-null, or equivalently both Th and Th* to be nontrivial.
- (37) p.135, end of second last sentence in section 2, add: "(I am indebted in this paragraph to comments by Greg Restall and Graham Priest.)".
- (38) p.139, 6 up, $\alpha(S)$ should be I subscript alpha (S).