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Guy letter

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88-04-04

Neil J.A. Sloane,
AT&T Bell Laboratories, Room 2C-376,
600 Mountain Avenue,
Murray Hill, NJ 07974

Dear Neil,

1. Thanks for yours of 88-03-18 and your help with ^{the} Tamaki problem (Adequacy # of a group). I probably won't use it, as reactions vary from mild interest down to complete contempt. If John Conway (have you asked him?) found it of any interest, that would make a difference.

2. I was most intrigued that the letter had a Danish franking on it. I enclose the envelope.

3. I enclose some further remarks I made to John Moon about the difference between binary trees and knock-out tournament structures. I've calculated the Capell-Narayana numbers far enough that you can include two lines in the second edition of the *Handbook*.

4. Here's another sequence that I may not have sent before. References are Moshe Rosenfeld, *Monthly* 78 (1971) 49 for the problem, and Peter McMullen (written communication) and K.B. Reid, The number of graphs on n vertices with 3 cliques, *J. London M.S.* (2) 8 (1974) 94-98 for the solution. It was erroneously reported in *Monthly* 80 (1973) 1124 and corrected *ibid.* 82 (1975) 997. I'm not aware that anyone had earlier computed (very many) any values ($n = 1, 2, 3, \dots$):

0, 0, 1, 4, 12, 31, 67, 132, 239, 407, 657, 1019, 1523, 2211, 3126, 4323, 5859, 7806, 10236, 13239, 16906, 21346, 26670, 33010, 40498, 49290, 59543, 71438, 85158, 100913 ($n = 30$).

Goes nicely with S.1396, which probably needs checking: some of Cayley's calculations are suspect.

5. You haven't yet told me what I should put in my review of Conway & Sloane!

6. If it's not too much trouble, please send a photocopy of *Tohoku Math. J.* 37 (1933); the article containing p.441 (v.S. 582, 1062, 1345).

Best wishes,

Yours sincerely,

Richard

Richard K. Guy.

RKG:l

Encl: envelope
pc letter to Moon

to 5289