scan
2 1 pages

L.W. Shapiro
and
N.J.A. Sloane

Correspondence
Sept 7 1976

add to 5 seqs
Dear Dr. Sloane,

This letter is to bring to your attention several small errors in your book on integer sequences.

Seq. 1170 should read 1, 3, 11, 45, 197, 903, ... A1003

which makes it identical to Seq. 1163. It is easy to show that the incomplete dissections of 1163 correspond directly to the incomplete parenthesizations of Schöder's problem. This is shown in Comtet's book. The sequence, essentially by doubling, is of sufficient independent interest to warrant its own entry.

For instance in walks on the following lattice, we see this sequence arise on the main diagonal. Again this is discussed in Comtet's book:

There are several other settings where these numbers occur naturally.

Seq. 496 could be better described as "permutations with no 3 cycles" which is the current description of Seq. 816.

Seq. 816 is related to this phenomenon but it's difficult to determine exactly how. Seq. 1631 could also use relabeling.
Another sequence worthy of inclusion in your book is the $\tau$ numbers mentioned by Riordan: $1, 0, 1, 1, 3, 6, 15, 36, 91, \ldots$, which also arise from random walks on the nonnegative integers where an object at $k > 0$ can move to $k-1, k, k+1$ while an object at 0 must move to 1.

Also as rooted trees with no vertex having only a single edge above it, these numbers again arise.

This handbook has been extremely helpful to me in my work. The writing is lucid, there are very few errors, and its very intelligently organized.

I would like very much to receive whatever supplements are available.

Thank you,

Louis W. Shapiro
104 Lake Ave
Newton, Mass. 02159
September 7, 1976

Professor Louis W. Shapiro
104 Lake Avenue
Newton, Massachusetts 02159

Dear Professor Shapiro:

Thank you very much for your letter, and for the kind words, comments, and corrections to the book. They are all very much to the point and I shall attend to them in the next issue of the supplement. This is long overdue, Supplement I (enclosed) now being quite out of date.

Could you please drop me a postcard some time giving the page in Riordan where he discusses the $\gamma$-numbers (random walks on the nonnegative integers)?

Perhaps the enclosed may amuse you.

Thank you for writing: I am glad to hear the book has proved useful.

Yours sincerely,

MH-1216-NJAS-mv

N. J. A. Sloane

Enc.
As above