Neil Check N262 !
Otherwise finished "A48

A6783
A48
A1156

38 Piggottshill Lane
Harpenden Herts.
16th March 1989

Dear Dr Sloane

I have the English edition of your book; and as I am an amateur with only the slightest knowledge of the literature, I am finding it very useful.

I am writing to take advantage of your kind offers on p.4 and p.5 to request the supplements that you mention. I am including some notes which I hope will interest you - though they may well already be covered by past supplements.

79 PARTITIONS INTO SQUARES The references have unfortunately been omitted from my copy of the book. The reason for my interest shows clearly below. A1156

262 NECKLACES This sequence is incredibly close to $\lfloor \frac{2\uparrow X}{2*X} \rfloor$ as shown in the enclosed printout.
I feel it is likely that if 262 is difficult to calculate, the very small discrepancies may be error :- 1091 for 1092, and 7280 for 7281. A48

244 PARTITIONS OF INTEGERS The idea of this sequence can be expanded to form a table of the partitions of powers; the partitions of squares into squares on the line below, and the partitions of cubes into cubes on the next line, and so on with 4th powers, 5th powers etc.
Of the many sequencies which comprise this table only two appear in your book: 244 horizontally and 245 vertically. So, I conclude that the table is new. Here is a sample :-

0	1	2	3	4	5	6	7	8	9
1	1	2	3	5	7	11	15	22	30
1	1	2	4	8	19	43	98	220	504
1	1	2	5	17	62	258	1050	4365	18012
1	1	2	7	36	253	1886	14800	118238	955639
1	1	2	9	88	1104	15772	241582	3869852	--
1	1	2	13	218	5082	140549	4318937	--	--
1	1	2	19	550	24119	1311749	8215969d	--	--
1	1	2	27	1413	117016	12648913	--	--	--
1	1	2	40	3679	577219	--	--	--	--
			59	9622	2881559	--	--	--	--

A44
A37444
A27601

I have been using an empirical program that generates the complete set of partitions and counts them oh so slowly. I have no theory for developing better methods - the best I can say is that I have now some basic data on which to test them.

Yours Sincerely H. L. Fisher

6788

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,T
 F$="############   " : DEFDBL Y : REM 262, NECKLACE ? HLF, 16/3/89
'OR X=1 TO 49 : Y=INT(INT(2^X+.5)/2/X) : PRINT USING F$;Y, : NEXT X
Ok
RUN
                1                1                1                2                3
                5                9               16               28               51
               93              170              315              585             1092
             2048             3855             7281            13797            26214
            49932            95325           182361           349525           671088
          1290555          2485513          4793490          9256395         17895698
         34636832         67108864        130150528        252645136        490853408
        954437184       1857283200       3616814592       7048151552       13743895552
      26817355776      52357697536      102280151040      199911211008      390937477120
     764877668352    1497207275520    2932031094784    5744387162112
Ok
```

dos to A48

1LIST 2RUN 3LOAD" 4SAVE" 5CONT 6,"LPT1 7TRON 8TROFF 9KEY 0SCREEN