

|      |   |   |   |      |       |       |         |
|------|---|---|---|------|-------|-------|---------|
| (2d) | 0 | 0 | 0 | -5   | -15   | -25   | -25     |
| (5d) | 0 | 0 | 0 | -250 | -750  | -1250 | -1250   |
| (6d) | 0 | 0 | 0 | -625 | -1875 | -3125 | -3125 . |

The first pivot element in the fourth column is in (2d).

$$(5e) \quad 0 .$$

Back substituting in (2d), (3c), (4b) and (1a), we find the coefficients in the recursion relation to be  $a = 3$ ,  $b = -4$ ,  $c = 2$ ,  $d = -1$ , so that the recursion relation of the fourth order is:

$$T_{n+1} = 3T_n - 4T_{n-1} + 2T_{n-2} - T_{n-3} .$$



[Continued from page 434.]

Turning to the players and the match itself, Fischer, who is now 29, won the U. S. Junior Open Championship at age 13 and became an international grandmaster at 15, while Spassky was 18, three years older than Fischer was, when designated an international grandmaster. Larry Evans, American grandmaster, in Time, September 11, 1972, analyzes the match as having three parts: games 1-5, opening, 5 games; games 6-13, middle, 8 games; games 14-21, ending, 8 games. Fischer's "poisoned pawn" bobble came on the 29<sup>th</sup> move of the first game, after Fischer had arrived 7 minutes late, while the 11<sup>th</sup> move of the third game was the key move in his first win. Finally, observe that the match was played in the 7<sup>th</sup> and 8<sup>th</sup> months at longitude 21°W.

In conclusion, returning to the opening sentence of this paper, notice that every proper noun has a Fibonacci number of letters in the word (except for Fibonacci itself).

The odds were really in our favor since 11 out of the first 21 integers are Fibonacci or Lucas numbers and of these 4 are even integers and 7 are odd integers. Again, of these 21, 7 are Lucas, 7 are Fibonacci and 3 are both.

The factual information in this article was gleaned for the most part from Time Magazine and the San Jose Mercury-News.

#### REFERENCE

1. V. E. Hoggatt, Jr., letters, September 5, 8, 11, and 13, 1972.

