INTRODUCTION

Since this is the first issue of a new academic year, let me once again review the ground rules under which this column is conducted.

In each issue I present three regular problems (the first of which is often chess, bridge, go, or computer-related) and one "speed" problem. Readers are invited to submit solutions to the regular problems, and two issues later, one submitted solution is printed for each regular problem; I also list other readers who responded. For example, solutions to the problems you see below will appear in the 1999 Jan/Feb issue and the current issue should contain solutions to the problems posed in 1998 May/June issue. However, as explained in May/June, the shift from 8 issues/year to 6 issues/year has resulted in a one-time bubble in the pipeline. As a result, there are no solutions this issue.

I am writing this column in mid June and hence anticipate that the 1999 Jan/Feb column will be due in mid October. Please try to send your solutions early to ensure that they arrive before my submission deadline. Late solutions, as well as comments on published solutions, are acknowledged in subsequent issues in the "Other Respondents" section. Major corrections or additions to published solutions are sometimes printed in the "Better Late Than Never" section as are solutions to previously unsolved problems.

For speed problems the procedure is quite different. Often whimsical, these problems should not be taken too seriously. If the proposer submits a solution with the problem, that solution appears at the end of the same column in which the problem is published. For example, the solution to this issue's speed problem is given below. Only rarely are comments on speed problems published.

There is also an annual problem, published in the Jan/Feb issue of each year, and sometimes I go back into history to republish problems that remained unsolved after their first appearance.

PROBLEMS

S/O 1. Larry Kells wants to know if it is possible to construct a deal in which no player has a void and (1) South as declarer can make 8 or more tricks with some trump suit or no trump against the best defense and (2) East as declarer can make 7 or more tricks with the same trump suit or no trump against the best defense?

S/O 2. Roy Sinclair has a ladder of length L located in the first quadrant with its ends on the coordinate axes. He wants you to (i) Find the equation of the boundary of the region swept out by the ladder as its foot is pulled away from the origin. (ii) Find the area of this region. (iii) Find the locus of the foot of the perpendicular from the origin to the ladder as the ladder moves.

S/O 3. Richard Hess wonders what is the largest prime that has no digit (from 0 to 9) used more than twice and only on repeated digit.

SPEED DEPARTMENT

Sid Shapiro's granddaughter has three bags. Two contain gold coins each coin weighing 1 pound and the other bag contains lead coins each weighing 1.5 pounds. Given a scale (which reads actually weight) that you may use only once, find the bag with the lead coins.

BETTER LATE THAN NEVER

1979 OCT 2. Fred Tydeman has simplified our published answer.

1997 N/D 3. Kelly Woods points out that the value of P for n=4 is 8/21.

OTHER RESPONDERS

Responses have also been received from R. Giovanniello,

PROPOSER'S SOLUTION TO SPEED PROBLEM

Take one coin from one bag and two coins from another and put all three on the scale.