

MAGIC SQUARE

5. (12 points) Write a program that will input an integer S that will represent the size of a square two-dimensional array of size $S \times S$. The program should then ask for each cell in the array (all integers) and determine if the array forms a magic square; that is, each row, column, and the two main diagonals all add up to the same number. The program should then print the array and the sum if it is a magic square or the array and a message if it is not.

EXAMPLE

```
S = 3    array = 2 9 4
                  7 5 3
                  6 1 8
MAGIC SQUARE    SUM = 15
```