Algorithm Design and Analysis Lab
Assignment 1

Q1. The magic square is a square matrix, whose order is odd and where the sum of the elements for each row or each column or each diagonal is same.

Write a function *MagicSquare* that takes the dimension of the matrix and a given arbitrary matrix of same size as input. The function should generate all possible magic squares and print the one which has minimum edit cost from the given matrix. The cost is computed as summation of absolute difference of values in each cell.

The **main()** function:
1. Take input (size of matrix) from user. Generate an arbitrary matrix of same size and fill it with random numbers.
2. Call *MagicSquare* to find out the minimum cost magic square for the arbitrary matrix.

Magic Square

8	1	6
3	5	7
4	9	2

Arbitrary One

9	2	3
6	5	1
4	8	7

Cost: 1 + 1 + 3 + 3 + 0 + 6 + 0 + 1 + 5 = 20