```
def forEvenNumber(n):
    x= [[(n * y) + x + 1 for x in range(n)] for y in range(n)]
    for i in range(0, n // 4):
        for j in range(0, n // 4):
            x[i][j] = (n * n + 1) - x[i][j];
    for i in range(0, n // 4):
        for j in range(3 * (n // 4), n):
            x[i][j] = (n * n + 1) - x[i][j];
    for i in range(3 * (n // 4), n):
        for j in range(0, n // 4):
            x[i][j] = (n * n + 1) - x[i][j];
    for i in range(3 * (n // 4), n):
        for j in range(3 * (n // 4), n):
            x[i][j] = (n * n + 1) - x[i][j];
    for i in range(n // 4, 3 * (n // 4)):
        for j in range(n // 4, 3 * (n // 4)):
            x[i][j] = (n * n + 1) - x[i][j];
    print("\nSum of all row, column and diagonals = ",
          n * (n * n + 1) // 2, "\n")
    for i in range(n):
        for j in range(n):
            print('%2d ' % (x[i][j]), end=" ")
        print()
def forOddNumber(n):
    s= [[0 for x in range(n)]
          for y in range(n)]
    r = n // 2
    c = n - 1
    num = 1
    while num <= (n * n):
        if r == -1 and c == n:
            c = n - 2
            r = 0
        else:
            if c == n:
                c = 0
            if r < 0:
                r = n - 1
        if s[int(r)][int(c)]:
            c = c - 2
            r = r + 1
            continue
        else:
            s[int(r)][int(c)] = num
            num = num + 1
        c = c + 1
```

```
            r = r - 1
        print("\nSum of all row, column and diagonals = ",
              n * (n * n + 1) // 2, "\n")
        for i in range(0, n):
            for j in range(0, n):
                print('%2d ' % (s[i][j]), end='')
            print()
print("\nWELCOME:)\n")
print("THIS PROGRAM RETURNS SAME SUM OF EACH ROW, COLUMN AND DIAGONAL!")
print()
n = int(input("Please Enter Number of Rows and Column (n*n): "))
if n%2==0:
    forEvenNumber(n)
else:
    forOddNumber(n)
print("\nThank you :)")
```

```
WELCOME:)

THIS PROGRAM RETURNS SAME SUM OF EACH ROW, COLUMN AND DIAGONAL!

Please Enter Number of Rows and Column (n*n): 5

Sum of all row, column and diagonals =  65

 9  3 22 16 15
 2 21 20 14  8
25 19 13  7  1
18 12  6  5 24
11 10  4 23 17

Thank you :)

Process finished with exit code 0
```

---

```
WELCOME:)

THIS PROGRAM RETURNS SAME SUM OF EACH ROW, COLUMN AND DIAGONAL!

Please Enter Number of Rows and Column (n*n): 3

Sum of all row, column and diagonals =  15

 2  7  6
 9  5  1
 4  3  8

Thank you :)

Process finished with exit code 0
```