

## שיעורי בית יסודות ריבוע קסם – אופיר הופמן י3

```
public static int Mod(int x, int m)
{
    return (x % m + m) % m;
}

public static void SolveMagicSqr(int[,] arr)
{
    int row = 0;
    int clmn = arr.GetLength(0) / 2;

    arr[row, clmn] = 1;

    int cnt = 2;

    for (int i = 0; i < Math.Pow(arr.GetLength(1), 2)-1; i++)
    {
        if (arr[Mod(row - 1, arr.GetLength(0)), Mod(clmn + 1, arr.GetLength(0))] == 0)
        {
            row = Mod(row - 1, arr.GetLength(0));
            clmn = Mod(clmn + 1, arr.GetLength(0));
            arr[row, clmn] = cnt;
        }

        else
        {
            row = Mod(row + 1, arr.GetLength(0));
            arr[row, clmn] = cnt;
        }

        cnt++;
    }
}

static void Main(string[] args)
{
    int[,] arr = new int[7, 7];

    SolveMagicSqr(arr);

    for (int i = 0; i < arr.GetLength(0); i++)
    {
        for (int j = 0; j < arr.GetLength(1); j++)
        {
            Console.Write(arr[i,j]/10 + ""+ arr[i,j]%10 + ", ");
        }
        Console.WriteLine();
    }

    Console.WriteLine();

    int[,] arr2 = new int[11, 11];

    SolveMagicSqr(arr2);
}
```

```
for (int i = 0; i < arr2.GetLength(0); i++)
{
    for (int j = 0; j < arr2.GetLength(1); j++)
    {
        Console.Write(arr2[i, j]/100 + "" + ((arr2[i, j]/10) - (arr2[i, j] /
100*10) + "" + arr2[i, j]%10 + ", "));
    }
    Console.WriteLine();
}
}
```