# Online on Loops

Section: B1+B2 Time: 60 minutes

## Q1. Rotate Number

Write a program that rotates a number (**ignoring leading zeros**) to the **right** by **n** digits. If **n** is larger than the number of digits, rotate using `n % number_of_digits`.

You cannot use any arrays. You may use conditional statements and loops.

**Input:** 123456 3
**Explanation:** 123456 → 612345 → 561234 → 456123
**Output:** 456123

**Input:** 98765 1
**Explanation**: 98765 → 59876
**Output:** 59876

**Input:** 10203 8
**Explanation:** 8 % 5 = 3, so: 10203 → 31020 → 03102 → 20310
**Output:** 20310

## Q1. Print Hollow Diamond-shaped Pattern

Write a program that prints a **hollow diamond-shaped pattern** centered inside a **solid rectangular frame** made of asterisks (*).
The output must be symmetrical both vertically and horizontally.

The rectangular frame has dimensions of 2*N rows and 2*N columns. The hollow diamond inside is made with asterisks marking only the edges, and all other positions are filled with spaces. The frame borders must be fully filled with asterisks.

You may only use **nested loops** and **conditional statements**. Arrays and functions are **not allowed**.

**Examples:**

```
N = 2
****
*  *
*  *
****

N = 3
******
**  **
*    *
*    *
**  **
******

N = 4
********
***  ***
**    **
*      *
*      *
**    **
***  ***
********

N = 5
**********
****  ****
***    ***
**      **
*        *
*        *
**      **
***    ***
****  ****
**********
```