Problem Statement

In the land of Matricia, the king encodes secret messages in **patterns drawn on square grids**.
He gives you:

1. A square matrix of size $N \times N$, filled with numbers from **1 to N×N** in row-major order.
2. A character ch which can be one of the following:
    - Z → Draw letter Z
    - D → Draw letter D
    - A → Draw letter A
    - X → Draw letter X

Your task is to:

- Construct the pattern using **matrix elements** (not just 0/1).
- Replace all non-pattern positions with 0.
- Print the resulting matrix.
- Print the **sum of all numbers used in the pattern**.

Input Format

- First line: A character ch (Z, D, A, X).
- Second line: An integer N ($3 \leq N \leq 20$).

Output Format

- The $N \times N$ matrix where only the chosen pattern positions keep their values, all others are 0.
- The sum of all values included in the pattern.

Constraints

- $3 \leq N \leq 20$
- Pattern is guaranteed to be one of {Z, D, A, X}