

# Print The Pattern

1 : A

2 : ABA

3 : ABACABA

4 : ABACABADABACABA

$N$  : ...

## Input

The input file consists of a number  $N$

## Output

The output file should only contains the pattern without additional characters (without newline character)

## Constraint

$1 \leq N \leq 15$

## Example

**Input:**

4

**Output:**

ABACABADABACABA