Some sequences of bits (3)  

Write a program that prints the number of sequences made up of exactly \( z \) zeros and \( u \) ones that are multiple of three when considered as a binary number. Note that numbers that begin with one or more zeros are allowed here.

For instance, there are 9 sequences for \( z = 2 \) and \( u = 4 \):

001111 011011 011110 100111 101101 110011 110110 111001 111100

Input

Input consists of several pairs of natural numbers \( z \) and \( u \), each between 0 and 30.

Output

For every pair of \( z \) and \( u \), print the required number.

Sample input

| 0 0 |
| 2 4 |
| 30 30 |

Sample output

| 1 |
| 9 |
| 3943695205465102 |

Problem information

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