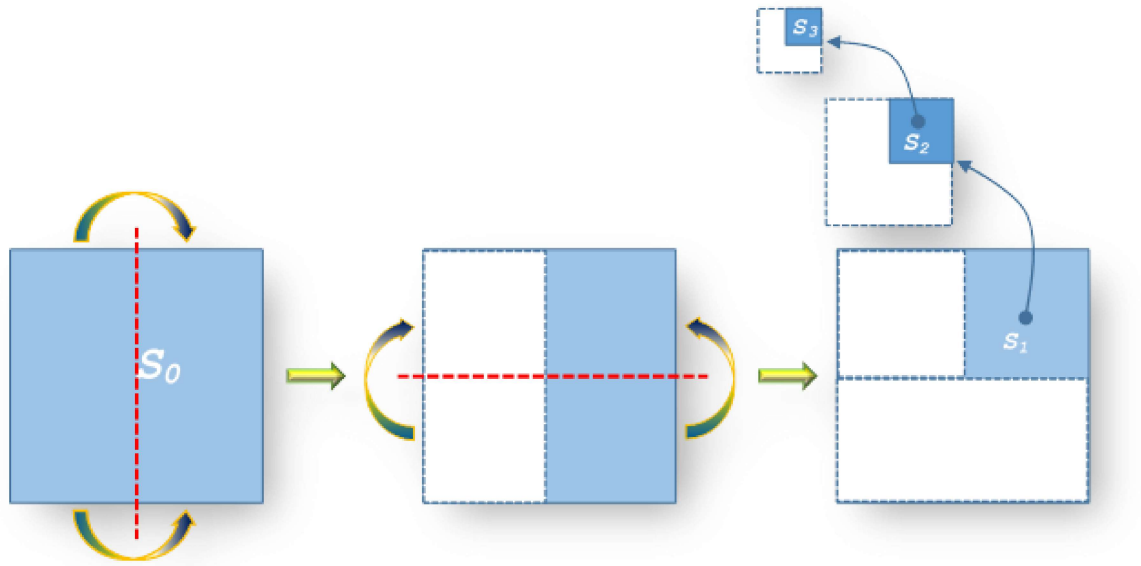
UIT-ALGOBOOTCAMP

SQUARE SEQUENCE

SQUARE SEQUENCE (1s, 512M)

Start with a square paper called S_0, if we fold S_0 in half then half again, we will the square S_1. Repeate that process on S_1 and we get S_2 and continue that process we will get a sequence of square: S_0, S_1, S_2, S_3, ... S_N. (see the illustration below)



Given that the square S_N have the side of lenght L, find the total area T of every squares in the sequence. If T is too large, return its modulo after divided by (10^9+7)

INPUT

Two integers on a single line, that is N and L ($0 \le N, L \le 10^9$)

OUTPUT

The value of T on a single line

EXAMPLE

INPUT	OUTPUT

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