

Problem Description

A lab was trying to synthesize a new virus. They had 1 cell of that virus. On a new day, the cell will die (if it is supposed to die) before it gives birth to a new cell every day after 8 days and it will die. Find the number of virus cells in the vial after A days.

Note : Since, the answer can be very large, output the answer modulo

Problem Constraints

$$1 \leq A \leq 10^5$$
$$1 \leq B \leq A$$
$$B < C \leq A$$

Input Format

Input is the integer A.
Integer B.