I couldn't find the problem :
but you have N light bulb, every hour a lightbulb changes of state (0 off, 1 on) if and only if the lightbulb on the left is on. You want to determine the state of these lightbulbs after B hours. (B is huge, N is quite small < 1000 and you want the problemto run very fast).

Input : several test cases :
first the number of lightbulbs N
then the number of steps B
N lines : the state of each lightbulb (1 open, 0 turned down)

Output : the state of each light (N lines of 1 or 0).