class Solution {

public int numTilings(int N) {

int MOD=1000000007;

if (N == 1) return 1;

if (N == 2) return 2;

long[] dp = new long[N + 1];

dp[0] = 1; dp[1] = 1; dp[2] = 2;

for (int i = 3; i <= N; i++) {

dp[i] = (dp[i - 1] \* 2 + dp[i - 3]) % MOD;

}

return (int) dp[N];

}

}