Write an algorithm to determine if a number n is happy.

A **happy number** is a number defined by the following process:

* Starting with any positive integer, replace the number by the sum of the squares of its digits.
* Repeat the process until the number equals 1 (where it will stay), or it **loops endlessly in a cycle** which does not include 1.
* Those numbers for which this process **ends in 1** are happy.

Return true *if* n *is a happy number, and* false *if not*.

**Example 1:**

Input: n = 19  
Output: true  
Explanation:  
12 + 92 = 82  
82 + 22 = 68  
62 + 82 = 100  
12 + 02 + 02 = 1

**Example 2:**

Input: n = 2  
Output: false

**Constraints:**

* 1 <= n <= 231 - 1