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Write an algorithm to determine if a number 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, and 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 numbers.

Example: 19 is a happy number

1^2 + 9^2 = 82

8^2 + 2^2 = 68

6^2 + 8^2 = 100

1^2 + 0^2 + 0^2 = 1

用map来存出现过的数

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class Solution {

public:

bool isHappy(int n)

{

map<int,int> p;

int sum=0;

while(n!=1 && p.find(n)==p.end())

{

p[n]++;

while(n!=0)

{

sum+=pow(n%10,2);

n/=10;

}

n=sum;

sum=0;

}

if(n==1)

return 1;

return 0;

}

};