

C:\Users\sunka\OneDrive\Desktop\c++ exam codes\w4.cpp - [Executing] - Dev-C++ 5.11

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TDM-GCC 4.9.2 64-bit Release

(globals)

Project Classes Debug

```
1 #include <iostream>
2 #include <set>
3
4 using namespace std;
5
6 bool isHappy(int n) {
7     set<int> seen;
8
9     while (n != 1 && seen.find(n) == seen.end()) {
10         seen.insert(n);
11         int sum = 0;
12         while (n > 0) {
13             int digit = n % 10;
14             sum += digit * digit;
15             n /= 10;
16         }
17         n = sum;
18     }
19
20     return n == 1;
21 }
22
23 int main() {
24     int n = 19;
25
26     if (isHappy(n)) {
27         cout << "Happy Number";
28     } else {
29         cout << "Not a Happy Number";
30     }
31
32     return 0;
33 }
34
```

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Happy Number

Process exited after 0.7227 seconds with return value 0

Press any key to continue . . .