Submission

ID	DATE	PROBLEM	STATUS	CPU	LANG
	TEST CASES				
8199999	02:56:15	How Many Digits?	✔ **Accepted**	0.05 s	C++
	✔ ✔				

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FILENAME	FILESIZE	SHA-1 SUM	
howmanydigits.cpp	829 bytes	9a1e7f1aef3bd987a3089be071e8fa4764c3db0b	download

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howmanydigits.cpp

```
1  #include <bits/stdc++.h>
2
3  using namespace std;
4
5  #define INF 999999
6
7  vector<int> digitos(1000001, 0);
8
9  void llenar(){
10
11      tam = 0;
12      actTam = 0;
13
```

Help

```cpp
    long double factorACtual = 1;

    digitos[0] = 1;

    for (int i = 1; i <= 1000000; i++) {

        if (i == 10 || i == 100 || i == 1000 || i == 10000 || i == 100000) {
            actTam++;
        }

        long double shortFactor = (long double)i / (pow(10, actTam));
        factorACtual *= shortFactor;
        tam += actTam;

        if (factorACtual > 10) {
            factorACtual /= 10;
            tam++;
        }
        digitos[i] = tam + 1;
    }
}

int main(){

    llenar();

    int num;
    while (cin >> num) {
        cout << digitos[num] << endl;
    }
    return 0;
}
```

Help