1100. Mars Numbers (20)

时间限制

400 ms

内存限制

65536 kB

代码长度限制

16000 B

判题程序

Standard

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People on Mars count their numbers with base 13:

* Zero on Earth is called "tret" on Mars.
* The numbers 1 to 12 on Earch is called "jan, feb, mar, apr, may, jun, jly, aug, sep, oct, nov, dec" on Mars, respectively.
* For the next higher digit, Mars people name the 12 numbers as "tam, hel, maa, huh, tou, kes, hei, elo, syy, lok, mer, jou", respectively.

For examples, the number 29 on Earth is called "hel mar" on Mars; and "elo nov" on Mars corresponds to 115 on Earth. In order to help communication between people from these two planets, you are supposed to write a program for mutual translation between Earth and Mars number systems.

**Input Specification:**

Each input file contains one test case. For each case, the first line contains a positive integer N (< 100). Then N lines follow, each contains a number in [0, 169), given either in the form of an Earth number, or that of Mars.

**Output Specification:**

For each number, print in a line the corresponding number in the other language.

**Sample Input:**

4

29

5

elo nov

tam

**Sample Output:**

hel mar

may

115

13

[提交代码](https://www.patest.cn/contests/pat-a-practise/1100)

这道题没什么好说的……考进制换算和情况考虑，实验数据很友善……基本能自己debug……

#include<iostream>

#include<string>

#include<algorithm>

#include<queue>

#include<vector>

#include<sstream>

#include<stack>

#include<map>

#include<cstring>

#include<climits>

#include<cmath>

#define MAX 1001

using namespace std;

string Onedig[13] = { "tret","jan","feb","mar","apr","may","jun","jly","aug","sep","oct","nov","dec" };

string Twodig[12] = { "tam","hel","maa","huh","tou","kes","hei","elo","syy","lok","mer","jou" };

map<string, int>onedig\_value;

map<string, int>twodig\_value;

void process(string temp)

{

int total=0;

for (int i = 0; i < temp.size(); i++)

{

total += (temp[temp.size() - 1-i] - '0')\*pow(10, i);

}

if (total <= 12)

cout << Onedig[total] << endl;

else if (total % 13 != 0)

cout << Twodig[total / 13 - 1] << " " << Onedig[total % 13] << endl;

else

cout << Twodig[total / 13 - 1]<<endl;

}

void process\_back(string target)

{

if (target.size() == 3)

{

map<string,int>::iterator temp;

temp = onedig\_value.find(target);

if(temp!=onedig\_value.end())

cout << temp->second << endl;

else

{

temp = twodig\_value.find(target);

cout << temp->second \* 13 << endl;

}

}

else

{

int temp;

temp = onedig\_value[target.substr(4)];

temp += twodig\_value[target.substr(0, 3)] \* 13;

cout << temp << endl;

}

return;

}

int main()

{

for (int i = 0; i < 13; i++)

{

onedig\_value.insert(make\_pair(Onedig[i], i));

}

for (int i = 1; i < 13; i++)

twodig\_value[Twodig[i - 1]] = i;

int num;

cin >> num;

getchar();

for (int i = 0; i < num; i++)

{

string temp;

getline(cin,temp);

if (temp[0] >= '0'&&temp[0] <= '9')

{

process(temp);

continue;

}

else

{

process\_back(temp);

}

}

}