**Factorial Number**

[maths](http://www.practice.geeksforgeeks.org/tag-page.php?tag=maths&isCmp=0)

For a given number n, find whether it is a factorial number or not. A **Factorialnumber** is a number which is equal to factorial value of another numbers.  For example 6 is factorial number because it is factorial of 3 and 5 is not a factorial number.

**Input:**  
First line contains an integer, the number of test cases 'T' Each test case should contain a positive integer N.

**Output:**  
Print "1" if it is a factorial number else print "0".

**Constraints:**  
1<=T<=20000  
1 <= N <=100000

**Example:**  
Input:  
2  
6  
5

Output:  
1  
0

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=828>

#include <iostream>

#include <stdio.h>

#include <map>

#include <vector>

#include <algorithm>

#define ll long long int

using namespace std;

int main() {

int t;

scanf("%d", &t);

std::vector<int> fac;

fac.push\_back(1);

fac.push\_back(2);

fac.push\_back(6);

fac.push\_back(24);

fac.push\_back(120);

fac.push\_back(720);

fac.push\_back(5040);

fac.push\_back(40320);

fac.push\_back(362880);

while(t--) {

int n;

scanf("%d", &n);

if(std::find(fac.begin(), fac.end(), n) != fac.end()) {

/\* v contains x \*/

printf("1");

} else {

/\* v does not contain x \*/

printf("0");

}

printf("\n");

}

return 0;

}