# Number Programs Part-2

1. **Buzz Number**

A number is said to be Buzz Number if it ends with 7 or is divisible by 7. Example: 1007 is a Buzz Number.

# Duck Number

A Duck number is a number which has zeroes present in it, but there should be no zero present in the beginning of the number. For example 3210

# Happy Number

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.
* 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.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 12 | + | 92 | = | 82 |
| 82 | + | 22 | = | 68 |
| 62 | + | 82 | = | 100 |
| 12 | + | 02 | + | 02 = 1 |

# LCM

**Input:** n = 19 **Output:** true **Explanation:**

The least common multiple, lowest common multiple, or smallest common multiple of two integers a and b, usually denoted by LCM(a, b), is the smallest positive integer that is divisible by both a and b.

**5. Spy**

A spy number is a number where the sum of its digits equals the product of its digits. For example, 1124 is a spy number, the sum of its digits is 1+1+2+4=8 and the product of its digits is 1\*1\*2\*4=8.

**6. Twin Prim**

A twin prime is a prime number that is either 2 less or 2 more than another prime number—for example, either member of the twin prime pair (41, 43). In other words, a twin prime is a prime that has a prime gap of two.

**7. Twisted Prim**

A number is called a twisted prime number if it is a prime number and reverse of this number is also a prime number.

**8. Unique Number**

A number is said to be unique , if the digits in it are not repeated. for example, 12345 is a unique number. 123445 is not a unique number.

1. **Disarium Number**

A number is said to be the Disarium number when the sum of its digit raised to the power of their respective positions becomes equal to the number itself.

For example, 175 is a Disarium number as follows:

**11+ 72 + 53 = 1+ 49 + 125 = 175**

# Pronic Number

The pronic number is a product of two consecutive integers of the form: n(n+1).

**For example:**

6 = 2(2+1)