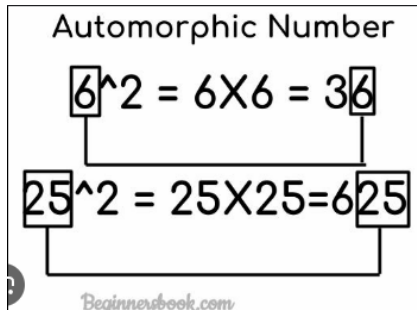


Number Programs –

- 1- Check weather the number is **Automorphic** or not

An automorphic number is a natural number whose square ends with the same digits as the number itself. For example, 5 square is 25 so 5 is a automorphic number.



- 2- Check weather the number is Happy or not
a happy number is a number that eventually reaches 1 when you repeatedly square each of its digits and add the results. For example, 13 and 49 are happy numbers.

Happy Number

e.g. 19

$$1^2 + 9^2 = 82$$
$$8^2 + 2^2 = 68$$
$$6^2 + 8^2 = 100$$
$$1^2 + 0^2 + 0^2 = 1$$

- 3- Find LCM – Lowest Common Multiple
Research on what is LCM and write logic for the same .

Pattern Programs –

1- 1
 123
 12345
 1234567

2- *****

 *

3- 1
 222
 33333
 4444444
 555555555

4- A
 BCD
 EFGHI
 JKLMNOP

5- A
 BBB
 CCCCC
 DDDDDDD

