Basant Vishwakarma

Harshad Number

OVERVIEW

6174 is called Harshad number. The number has a very interesting feature explained below: Start with any number, and this will end in looping with 6174, The Harshad Number

In mathematics, a Harshad number (or Niven number) in a given number base is an integer that is divisible by the sum of its digits when written in that base. Harshad numbers in base n are also known as n-harshad (or n-Niven) numbers. Harshad numbers were defined by D. R. Kaprekar, a mathematician from India.

The word "Harshad" comes from the Sanskrit harṣa (joy) + da (give), meaning joy-giver. The term "Niven number" arose from a paper delivered by Ivan M. Niven at a conference on number theory in 1977.

EXAMPLE:

The number 18 is a harshad number in base 10, because the sum of the digits 1 and 8 is

9 (1 + 8 = 9), and 18 is divisible by 9.

The Hardy–Ramanujan number (1729) is a harshad number in base 10, since it is divisible by 19, the sum of its digits (1729 = 19 × 91).