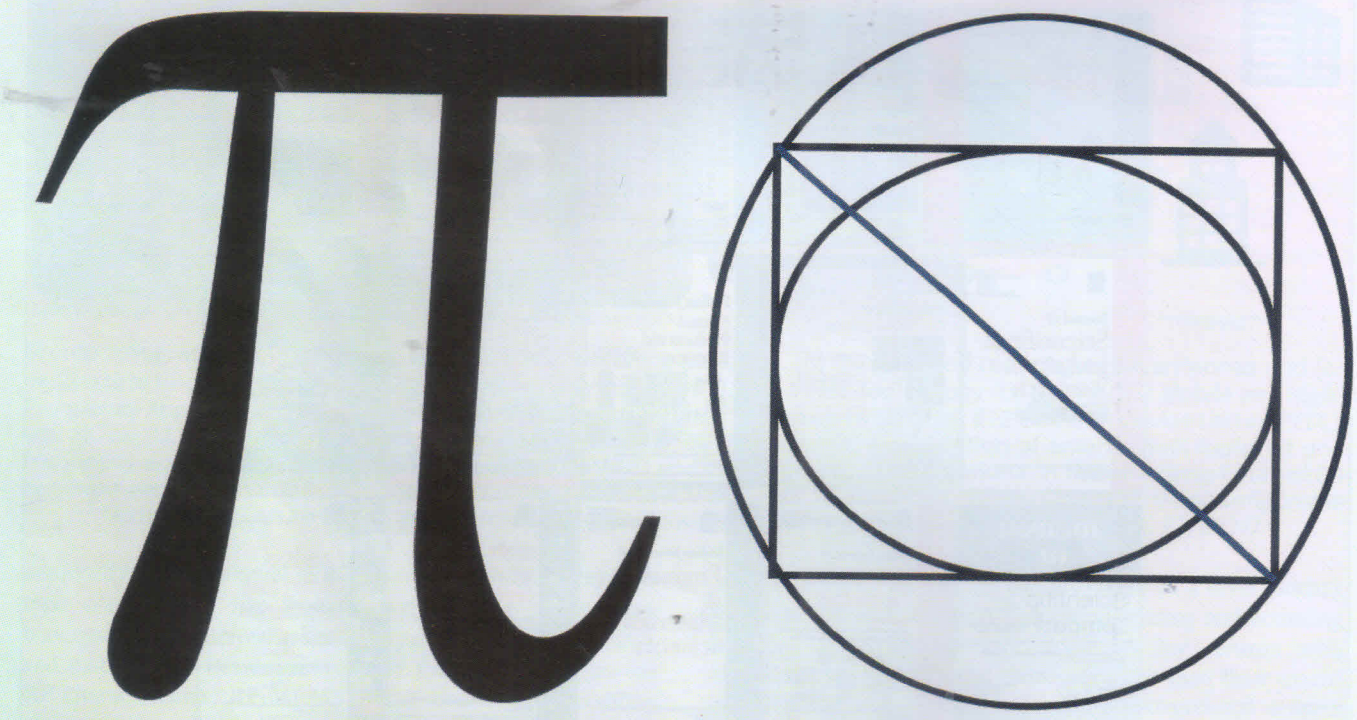
Oh, I am Pi!

Surbhi Dahiya

Every year, March 14 is celebrated as Pi Day, and it is because Pi is written as 3.14 in the simplest form, which relates to 3 (March, Month), and 14 (Day). At the 40th General Conference of UNESCO in 2019, this day was designated as the "International Mathematics Day."



PI (denoted as Π) is not just an ordinary discovery or a number; it is mysterious and scientific in nature. Pi is calculated as a ratio of the circumference of a circle to its diameter, and the basic fact that emerges is that no matter what the size of a circle is, the value does not alter, which makes Pi a significant mathematical constant. Another noteworthy mystery that is related to it is that it is an irrational number with no repeating or recurring numbers or any pattern after decimal. However, some sub-patterns are seen; at position, 17,387,594,880, one can find digits 0123456789 in order; at position 60, these numbers are in jumbled form; at position 768, there are six nines in a row. Miraculous behaviour!

Why is Pi celebrated across the world and considered a mysterious number? It is because it is encoded in one or the other form in the universe through a variety of expressions. In a very crucial observation, it was found that if the actual length of a river is divided by the straight-line path of a river, which is called sinuosity, describing how bendy a river can be, it was found that the average sinuosity of all natural rivers came out to be Pi. Interesting! Pi has certain characteristics, like it is transcendental in nature, meaning it cannot be calculated by simple operations like subtraction, addition, multiplication, division, or square root extraction.

Delving into the history of Pi, it is known from almost 4000 years ago. It is said that the first calculations were done by Babylonians, who calculated the area of a circle by taking three times the square of its radius and giving the value of Pi = 3. Years later, Babylonians performed more calculations, and this value reached 3.125, making it closer to the contemporary figure. Nearly 1650 BC, Egyptians used a certain formula for circle and made it to 3.1605 for Π. The other way of