

Irrational Numbers:

The number 'a' which cannot be written in the form of p/q is called irrational, where p and q are integers and $q \neq 0$ or you can say that the numbers which are not rational are called Irrational Numbers.

Example - $\sqrt{7}$, $\sqrt{11}$ etc.

Know About π

π is defined as the ratio of the circumference (C) of a circle to its diameter (d).
i.e.

$$\pi = \frac{C}{d}$$

As π is in the form of ratio, this seems to contradict the fact that π is irrational. The circumference (C) and the diameter (d) of a circle are incommensurable. i.e. there does not exist a common unit to measure that allows us to measure the both numerator and denominator. If you measure accurately then at least either **C** or **d** is irrational. So π is regarded as irrational.

The Greek genius **Archimedes** was the first to compute the value of π . He showed the value of π lie between 3.140845 and 3.142857.

(i.e., $3.140845 < \pi < 3.142857$)

Using high speed computers and advanced algorithms, π has been computed to over 1.24 trillion decimal places .

$\pi = 3.14159265358979323846264338327950 \dots$. The decimal expansion of π is non-terminating non-recurring. So π is an irrational number. Note that, we often take as an approximate value of π , but $\pi \neq \frac{22}{7}$