

Pi Day: Once-in-a-century Celebration (2015)

by Gonit Sora - Tuesday, March 24, 2015

<https://gonitsora.com/pi-day-once-in-a-century-celebration-2015/>

Exactly a month after the Valentine's Day, there comes an event which is not less than Valentine's Day for many people around the world. Those are the math-lovers. Very popularly known as the [Pi Day](#), this day celebrates the mathematical constant π . π , an irrational number cannot be written as the ratio of two integers and it is the ratio of a circle's circumference to its diameter.

14th March is also the birthday of the great theoretical physicist who developed the general theory of relativity, one of the two pillars of modern physics. He is best known for his mass-energy equivalence formula $E=mc^2$. He received the 1921 Nobel Prize in Physics for his discovery of the law of the photoelectric effect. He is none other than Albert Einstein and his intellectual achievements have popularized the word 'Einstein' as a synonym of genius.

The number π is a mathematical constant, commonly approximated as 3.14159. It has been represented by the Greek letter " π " since the mid-18th century. Being an irrational number, π cannot be expressed exactly as a common fraction. Though fractions such as $\frac{22}{7}$ and other rational numbers are commonly used to approximate π , its decimal representation neither ends nor settles into a permanently repeating pattern.

As the definition relates to the circle, π has found its applications in trigonometry and geometry, especially those concerning circles, ellipses, cylinders or spheres. It is also found in other branches of science and mathematics such as cosmology, number theory, statistics, thermodynamics, mechanics and electromagnetism. Even it has found its applications in testing supercomputers and high-precision multiplication algorithms.

The earliest known use of the Greek letter π for this mathematical constant was by mathematician William Jones in his 1706 work A New Introduction to the Mathematics. After Jones', Euler started using it with his 1736 work Mechanica. John von Neumann was part of the team that first used a digital computer, ENIAC, to compute π . The team achieved 2,037 digits with a calculation taking 70 hours of computer time on the ENIAC. [Srinivasa Ramanujan](#), working in isolation in India, produced many innovative series for computing π . His work was the basis for the fastest algorithms used to calculate π and is used in some computer algebra software too.

An annual celebration, Pi Day is observed on March 14 (or 3/14 in the month/date format), since 3, 1, and 4 are the first three significant digits of π in decimal form. In 2009, the United States House of Representatives supported the designation of Pi Day. Pi Approximation Day is observed on July 22 (or 22/7 in the date/month format), since the fraction $\frac{22}{7}$ is a common approximation of π , which is accurate to two decimal places. People celebrate this event around the world with pie-eating, pie-recitation competition, quizzes on pi, discussing the significance of the number π etc. Attempts to memorize the value of π with increasing precision have led to records of over 67,000 digits.

Memorizing π is also of great fun. If we round up to 4 places after decimal it comes to 3.1416, which can be memorized by “Yes, I have a number” as ‘Yes’ contains 3 letters, ‘,’ is used in place of decimal, ‘I’ has 1 letter and so on. If we want to remember the value of π (3.1415926) in easy way up to 7 places after decimal, we can do it by counting each word's letters in 'May I have a large container of coffee?'

There are many fascinating facts about π . One fascinating thing among these is that if one writes π to two decimal places, backwards it spells “pie” or the mirror image of 3.14 is “PI?”. A pizza with radius “z” and height “a” has volume $\pi \times z \times z \times a$ or Pizza.

The earliest known official celebration of Pi Day was organized by Larry Shaw in 1988 at the San Francisco Exploratorium, where he worked as a physicist, with staff and public marching around one of its circular spaces, then consuming fruit pies. On March 12, 2009, the U.S. House of Representatives passed a non-binding resolution (HRES 224), recognizing March 14, 2009 as National Pi Day. For [Pi Day 2010](#), Google presented a Google Doodle celebrating the holiday, with the word Google laid over images of circles and pi symbols. Few mathematics lovers celebrate the whole month as "Pi Month".

This 2015 Pi Day has special significance at 9:26:53 a.m. and p.m., with the date and time representing the first 10 digits of π , that is 3.141592653. However, few argue that 9:26:54 a.m. and p.m. on 3/14/15 are more accurate because of the 11th digit of π being 5, which would cause the 10th digit to round up to 4. So, the moment when the clock stuck 9: 26: 53 a.m. on the 14th March of 2015, was shockingly unique. This moment takes place for once in a hundred year. So, this year's Pi Day was a reason for grand celebration especially for those whose first love is Mathematics. In other words, this Pi Day was a once-in-a-century celebration.

In a survey of OECD in 2012, the U.S. was below average in its math score, falling behind the Slovak Republic in this survey. A study in Spain in 2009 reveals that six out of 10 college students experience anxiety around math. In 2012, 46.5 per cent of rural children in Class V could not solve a two-digit subtraction problem without seeking help in India. To conclude, we can say that maths is not a much-loved subject. In fact, the phenomenon of “maths phobia” is becoming an increasing problem worldwide.

It is high time for us to recognize these challenges and work hard so that they don't get mirrored in the next generation. Let us be thankful to this wonderful subject and fall in love with it by exploring such interesting facts as being rightly quoted by Paul Dirac “God used beautiful mathematics in creating the world”.

PDF generated from <https://gonitsora.com/pi-day-once-in-a-century-celebration-2015/>.

This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.