

Pop Quiz on π Bruce Ratner, Ph.D.

1. What is π ?
2. What is the real value of π ?
3. How do mathematicians determine the value of π ?
4. How was π calculated in ancient times?
5. π , often spelled out *pi* in text, was adopted from the Greek word for perimeter "περίμετρος" first by mathematician William Jones in 1707. Who was responsible for the forever-named π with the Greek letter π ?
6. What is the popular formula related to π ? What's the silly refrain once it's recited?
7. How does π play into the extension of the Pythagorean Theorem? (The sum of the areas of the semicircles on the legs of a right triangle is equal to the areas of the semicircle on the hypotenuse.)
8. π is always popping up, usually unexpectedly. π invades the fields of mathematics (exclusive of geometry) and everyday life. How does π find itself in probability?
9. Einstein uses π in his Theories of Relativity. Where does π find itself in his theories?
10. π is found in Einstein's birthday, March 14, 1879! The birthday numerically can be expressed as 3.141879, which is a good approximation of π . It is with 3 decimal place accuracy. Where have you seen π unexpectedly? How about [here!](#)

Very-Abridged Table of Computation of π from 2000 BCE to Present

1. Babylonians calculated π 2000? BCE with 1 decimal place accuracy: 3.125
2. Egyptians calculated π 2000? BCE with 1 decimal place accuracy: 3.16045
3. Chinese calculated π 1200? BCE with 1 decimal place accuracy: 3
4. Bible calculated π 550? BCE with 4 decimal place accuracy: 3.1416
5. Kanada and nine-person team at University of Tokyo calculated π September 2002 with 1,241,100,000,000 decimal place accuracy: See page 77. [1]

This Pop Quiz on Pi mostly draws on the contents of reference cited below.

Reference:

1. Posamentier, A. S., Lehmann, I., *A Biography of the World's Most Mysterious Number*, Prometheus Books, Amherst, New York, 2004.