

Historical Foundations of Mathematics

Mathematics History · Answer Key · 10 Questions

1. Which ancient civilization is credited with developing the positional base-60 number system, the foundation for modern time and angle measurement?

- A) Ancient Egypt
- B) Babylonians**
- C) Ancient Greeks
- D) Mayans

2. The Rhind Mathematical Papyrus, a primary source for ancient Egyptian algebra and arithmetic, dates back to approximately what year?

- A) 1650 BCE**
- B) 500 BCE
- C) 200 CE
- D) 1000 BCE

3. Who is the 9th-century Persian mathematician often referred to as the 'father of algebra' due to his work 'Al-Kitab al-mukhtasar fi hisab al-jabr wa'l-muqabala'?

- A) Euclid
- B) Archimedes
- C) Al-Khwarizmi**
- D) Pythagoras

4. In which century did Hindu-Arabic numerals, which include the digit zero, first begin to appear in European mathematical texts?

- A) 5th century
- B) 10th century
- C) 12th century**
- D) 15th century

5. The concept of 'negative numbers' was formally recognized and documented in the 'Nine Chapters on the Mathematical Art' in which country?

- A) China**
- B) India
- C) Persia
- D) Italy

6. Which Greek mathematician is famously associated with the theorem relating the squares of the sides of a right-angled triangle?

- A) Thales
- B) Plato
- C) Pythagoras**
- D) Aristotle

7. What is the name of the oldest known mathematical object, a baboon fibula marked with notches, discovered in the Lebombo Mountains?

- A) The Ishango Bone
- B) The Lebombo Bone**
- C) The Rosetta Stone
- D) The Berlin Papyrus

8. Leonardo of Pisa, better known as Fibonacci, introduced the Hindu-Arabic numeral system to Europe in his 1202 book titled:

- A) Elements
- B) Liber Abaci**
- C) The Nine Chapters
- D) Arithmetica

9. Which mathematical symbol for equality (=) was introduced by Robert Recorde in 1557 because the two lines were 'parallel and thus identical'?

- A) The Whetstone of Witte**
- B) The Elements
- C) Calculus Novum
- D) Algebraic Foundations

10. The Mayan civilization, which utilized a vigesimal (base-20) number system, was one of the first cultures to independently develop a symbol for what value?

- A) Infinity
- B) One
- C) Zero**
- D) Pi