

Historical Astronomy and Verified Events

Astronomy · Answer Key · 17 Questions

1. Which ancient Greek astronomer is credited with the first systematic attempt to calculate the circumference of the Earth using geometric principles and observations of shadows?

- A) Hipparchus
- B) Aristarchus of Samos
- C) Eratosthenes**
- D) Ptolemy

2. Galileo Galilei's telescopic observations in the early 17th century provided crucial evidence supporting the heliocentric model. Which of his key observations directly challenged the geocentric view?

- A) The phases of Venus**
- B) The rings of Saturn
- C) The moons of Jupiter
- D) Sunspots

3. The discovery of the planet Neptune in 1846 was a landmark event, largely predicted based on mathematical calculations. Which two astronomers independently predicted Neptune's existence and location?

- A) John Couch Adams and Urbain Le Verrier**
- B) William Herschel and Pierre-Simon Laplace
- C) Johannes Kepler and Isaac Newton
- D) Caroline Herschel and Carl Friedrich Gauss

4. What significant astronomical event, observed by Tycho Brahe in 1572, challenged the Aristotelian notion of an unchanging celestial sphere and led to a re-evaluation of cosmology?

- A) A total solar eclipse
- B) A supernova (now known as Tycho's Supernova)**
- C) A cometary passage
- D) The appearance of Halley's Comet

5. The first accurate measurement of the distance to a star (other than the Sun) was made in the 19th century. Which star was this, and by whom?

- A) Sirius, by Friedrich Bessel
- B) Alpha Centauri, by Thomas Henderson**
- C) Polaris, by Giovanni Battista Riccioli
- D) Vega, by Carl Friedrich Gauss

6. The discovery of the Cosmic Microwave Background (CMB) radiation in 1964 by Arno Penzias and Robert Wilson provided strong evidence for which cosmological theory?

A) The Steady State theory

B) The Big Bang theory

C) The Oscillating Universe theory

D) The Expanding Universe theory

7. Which ancient civilization developed sophisticated astronomical calendars and observed celestial movements with remarkable accuracy, exemplified by the Antikythera mechanism?

A) The Egyptians

B) The Babylonians

C) The Maya

D) The Greeks

8. The first successful detection of gravitational waves from colliding black holes, announced in 2016, was a culmination of decades of work and a major confirmation of Einstein's theory. What instrument was responsible for this detection?

A) The Hubble Space Telescope

B) The Chandra X-ray Observatory

C) The Laser Interferometer Gravitational-Wave Observatory (LIGO)

D) The James Webb Space Telescope

9. The concept of the 'Parallax' method for measuring stellar distances was first rigorously applied by astronomers in the 19th century. Who is credited with the first successful measurement of stellar parallax?

A) Friedrich Bessel

B) William Herschel

C) Giovanni Cassini

D) Christiaan Huygens

10. The historical discovery of Uranus in 1781 by William Herschel marked the first time a planet was discovered using what tool?

A) Naked-eye observation

B) A refracting telescope

C) A reflecting telescope

D) Mathematical prediction

11. What was the name of the first artificial satellite successfully launched into Earth orbit, marking the beginning of the Space Age?

- A) Explorer 1
- B) Vanguard 1
- C) Sputnik 1**
- D) Telstar 1

12. The 'Great Comet of 1811' was a particularly bright and notable celestial event observed by many. Its appearance is sometimes associated with scientific discussions and artistic representations of the time. Which astronomer is credited with its detailed study?

- A) William Herschel
- B) Jean-Louis Pons**
- C) Caroline Herschel
- D) Johann Elert Bode

13. The heliocentric model of the solar system, placing the Sun at the center, was initially proposed by Aristarchus of Samos in antiquity. However, it was not widely accepted until much later. Who is most famously credited with reviving and providing significant mathematical support for this model during the Renaissance?

- A) Tycho Brahe
- B) Johannes Kepler
- C) Nicolaus Copernicus**
- D) Galileo Galilei

14. The discovery of the first exoplanet orbiting a Sun-like star, 51 Pegasi b, was announced in 1995. This discovery opened a new era in astronomy. Who were the astronomers who made this groundbreaking observation?

- A) Mayor and Queloz**
- B) Wolszczan and Frail
- C) Gliese and Laflamme
- D) Hartman and Kulkarni

15. Which historical astronomical observatory, founded in 1667, played a pivotal role in precise timekeeping and navigation, and is famous for its meridian circle and the Prime Meridian line?

- A) Mount Wilson Observatory
- B) Yerkes Observatory
- C) Greenwich Royal Observatory**
- D) Palomar Observatory

16. The 'Apollonian' solar eclipse, a term sometimes used to describe a particularly spectacular total solar eclipse, is often associated with historical accounts and observations. However, the scientific understanding of solar eclipses as predictable phenomena advanced significantly with which astronomer's work on orbits?

- A) Isaac Newton
- B) Johannes Kepler**
- C) Edmund Halley
- D) Pierre-Simon Laplace

17. The spectrographic analysis of starlight, which revealed the chemical composition of stars, was a revolutionary development. Which astronomer is credited with pioneering the use of spectroscopy in astronomy?

- A) Joseph von Fraunhofer
- B) Angelo Secchi
- C) William Huggins**
- D) Edward Pickering