

Solar Eclipses: A Comprehensive Guide (2021-2030)

Astronomy · Answer Key · 19 Questions

1. What is the period of the Saros cycle?

- A) Approximately 18 years 11 days**
- B) Exactly 10 years
- C) Approximately 5 years 6 months
- D) Approximately 28 days

2. Which column in the table lists the type of eclipse (Total, Annular, Hybrid, Partial)?

- A) Calendar Date
- B) TD of Greatest Eclipse
- C) Eclipse Type**
- D) Saros Series

3. What does 'TD of Greatest Eclipse' represent?

- A) The time the eclipse is visible from a specific location
- B) The terrestrial dynamical time when the Moon's shadow axis is closest to Earth's center**
- C) The duration of the eclipse in minutes
- D) The geographical region where the eclipse is seen

4. For total and annular eclipses, what information is provided in the 'Central Duration' column?

- A) The duration of the partial phase of the eclipse
- B) The length of the eclipse as seen from the central line at greatest eclipse**
- C) The time it takes for the Moon to cross the Sun
- D) The time between successive eclipses in a Saros series

5. What type of eclipse occurred on December 4, 2021?

- A) Annular
- B) Total**
- C) Hybrid
- D) Partial

6. Which eclipse in 2023 was a Hybrid type?

- A) April 20**
- B) October 14
- C) April 20 and October 14
- D) None

7. Where was the total solar eclipse of April 8, 2024 primarily visible?

- A) Antarctica and S. Africa
- B) Europe and Asia
- C) N. America and C. America**
- D) Pacific Ocean and S. America

8. What is the magnitude of the total solar eclipse on April 8, 2024?

- A) 0.933
- B) 1.057**
- C) 0.963
- D) 1.039

9. Which eclipse in the table had the longest Central Duration?

- A) October 2, 2024
- B) January 26, 2028**
- C) February 6, 2027
- D) October 14, 2023

10. What does the 'Eclipse Magnitude' value represent for total and annular eclipses?

- A) The fraction of the Sun's area obscured
- B) The ratio of diameters between the Moon and the Sun**
- C) The percentage of the Sun's light blocked
- D) The duration of totality in seconds

11. How can you view a map of an eclipse's visibility?

- A) By clicking on the Eclipse Type
- B) By clicking on the Calendar Date**
- C) By clicking on the Saros Series
- D) By clicking on the Central Duration

12. What colors represent the path of the Moon's penumbral shadow on an eclipse map?

- A) Blue/Red
- B) Cyan and Magenta**
- C) Yellow
- D) Green

13. What feature allows you to pan and zoom along an eclipse track?

- A) Global Map
- B) Saros Table
- C) Interactive Google Map**
- D) Eclipse Bulletin

14. Where can you find tables of geographic coordinates for the paths of central eclipses?

A) Through the Eclipse Type link

B) Through the Central Duration link

C) By clicking on the Calendar Date

D) By clicking on the Saros Series

15. What is the approximate size range for animated GIF files of shadow movements?

A) 10 KB to 50 KB

B) 40 KB to 175 KB

C) 200 KB to 500 KB

D) 60 KB to 100 KB

16. Which eclipse on February 17, 2026, was visible in s Africa and Antarctica?

A) Total

B) Annular

C) Hybrid

D) Partial

17. What is the Central Duration of the total solar eclipse on August 12, 2026?

A) 02m18s

B) 06m23s

C) 05m10s

D) 03m44s

18. Which eclipse on August 2, 2027, had the highest Eclipse Magnitude listed?

A) 1.039

B) 1.079

C) 1.056

D) 1.047

19. The solar eclipse on January 26, 2028, was visible in which regions of the Americas?

A) Only N. America

B) Only S. America

C) e N. America, C. & S. America

D) w N. America, C. & S. America