

Cosmic Stages: Astronomy in Theatre

Drama & Theatre · Answer Key · 25 Questions

1. Which 17th-century dramatist wrote 'The Tempest', a play whose title and themes are frequently linked to the orbital mechanics and atmospheric disturbances observed in the giant planets of the outer solar system?

A) William Shakespeare

- B) Ben Jonson
- C) Christopher Marlowe
- D) John Webster

2. In the context of Greek amphitheater acoustics, the 'skene' served as the backdrop; which planet is the only one in our solar system that rotates on its side, mirroring the structural axis of a fallen theatrical backdrop?

- A) Neptune
- B) Saturn

C) Uranus

- D) Jupiter

3. The term 'deus ex machina' describes a god intervention; which celestial body is the primary source of the 'solar wind' that creates the auroras often simulated by lighting designers in 'space-themed' stage productions?

A) The Sun

- B) Mars
- C) Venus
- D) The Moon

4. What is the theatrical term for a circular stage, and which dwarf planet is located in the Kuiper belt and shares its name with a minor character in the play 'The Importance of Being Earnest'?

A) Arena / Eris

- B) Proscenium / Makemake
- C) Thrust / Ceres
- D) Traps / Haumea

5. In stage lighting, the 'inverse square law' dictates intensity; which physical law governs the orbital period of planets, analogous to the timing of a complex theatrical cue?

A) Kepler's Third Law

B) Newton's First Law

C) Hubble's Law

D) Stefan-Boltzmann Law

6. The Globe Theatre was modeled on the cosmos; what is the name of the nearest spiral galaxy that, if projected on a theatre cyclorama, would span roughly 2.5 million light-years?

A) Andromeda

B) Triangulum

C) Whirlpool

D) Sombrero

7. Which playwright's 'Galileo' explores the heliocentric model, the same model where the planet that experiences the longest 'year' (orbital period) is Neptune?

A) Bertolt Brecht

B) Samuel Beckett

C) Tom Stoppard

D) Arthur Miller

8. 'Black Box' theatres are minimalist; what is the scientific name for the theoretical 'limit' of a collapsed star that dictates the density of a black hole?

A) Chandrasekhar limit

B) Event horizon

C) Schwarzschild radius

D) Singularity

9. Which planet, named after the Roman god of the underworld, has a temperature extreme that requires stage-grade 'cryogenic' fog effects for accurate simulation?

A) Pluto

B) Mercury

C) Mars

D) Venus

10. The 'Pleiades' star cluster is often referenced in classical literature; what is the spectral classification of the Sun, often used in lighting design to represent 'daylight' temperature?

A) G2V

B) M4D

C) O7B

D) K9F

11. In stage rigging, a 'counterweight' system balances loads; which force is the primary determinant of the surface gravity of planets like Jupiter?

A) Mass

B) Volume

C) Atmospheric pressure

D) Magnetic field

12. The 'Great Red Spot' is a storm on Jupiter; what is the theatrical term for a spotlight that maintains focus on an actor as they traverse the stage?

A) Followspot

B) Fresnel

C) Ellipsoidal

D) Parcan

13. Which celestial body has a retrograde rotation, similar to a stage mechanism that moves in reverse, and is the hottest planet in our system?

A) Venus

B) Mars

C) Mercury

D) Uranus

14. The 'Orion Nebula' is a star-forming region; what part of a theatre is named after the 'fly' system used to hoist scenery?

A) Fly loft

B) Wings

C) Gridiron

D) Catwalk

15. What is the name of the 'terminator' line on the Moon, which separates day from night, and is also a type of dramatic 'cliffhanger' ending?

A) Terminator

B) Penumbra

C) Umbra

D) Syzygy

16. The rings of Saturn are composed of ice and rock; what is the name of the 'curtain' made of vertical strips often used for specialized lighting effects?

- A) Tab curtain
- B) Scrim**
- C) Cyclorama
- D) Austrian curtain

17. Which constellation, often depicted in theatrical scenic painting, contains the star Betelgeuse, a red supergiant?

- A) Orion**
- B) Ursa Major
- C) Cassiopeia
- D) Cygnus

18. The 'Andromeda Paradox' is a philosophical problem; which planet's axis tilt causes the extreme seasonal variations that might be depicted in a sci-fi set design?

- A) Uranus**
- B) Earth
- C) Saturn
- D) Jupiter

19. In acoustics, the 'Doppler effect' changes frequency; which planet is the furthest from the Sun, setting the stage for the furthest 'act' in our solar system's structure?

- A) Neptune**
- B) Pluto
- C) Eris
- D) Makemake

20. A 'gobo' is used to shape light; what is the name of the region of space surrounding a star where liquid water can exist, often used as a setting for planetary dramas?

- A) Habitable zone**
- B) Asteroid belt
- C) Oort cloud
- D) Heliosphere

21. 'Solar flares' emit intense radiation; what is the name of the stage device that creates a rapid, flickering lighting effect?

- A) Strobe**
- B) Dimmer
- C) Scanner
- D) Wash

22. The 'Big Bang' represents the origin of the universe; which term refers to the first act of a classical play structure?

- A) Exposition**
- B) Climax
- C) Resolution
- D) Denouement

23. Which planet has a 'Great Dark Spot', and which theatrical term refers to the area of the stage hidden from the audience?

- A) Neptune / Offstage**
- B) Jupiter / Backstage
- C) Uranus / Wings
- D) Mars / Pit

24. What type of stellar remnant, representing the 'final scene' of a star like our Sun, is a 'white dwarf'?

- A) White dwarf**
- B) Supernova
- C) Neutron star
- D) Protostar

25. The 'Milky Way' is a barred spiral galaxy; what is the theatrical term for the curved back wall of a stage used for projections?

- A) Cyclorama**
- B) Scrim
- C) Batten
- D) Teaser