

Advanced Solar System Geography

Solar System Basics · Answer Key · 10 Questions

1. Which Martian volcano, the largest in the Solar System, is so vast that its base would cover the state of Arizona?

- A) Mount Kilimanjaro
- B) Mauna Loa
- C) Olympus Mons**
- D) Mount Everest

2. The Great Red Spot, a persistent anticyclonic storm on Jupiter, is larger than Earth. What is its approximate diameter in kilometers?

- A) 10,000 km
- B) 25,000 km**
- C) 40,000 km
- D) 65,000 km

3. Triton, Neptune's largest moon, has a retrograde orbit, meaning it orbits Neptune in the opposite direction of Neptune's rotation. What is the most accepted theory for Triton's origin?

- A) It formed simultaneously with Neptune.
- B) It is a captured Kuiper Belt Object.**
- C) It was ejected from a binary star system.
- D) It is a remnant of a planetary collision.

4. What is the most volcanically active celestial body in the Solar System, known for its numerous active volcanoes and sulfurous plumes?

- A) Io (moon of Jupiter)**
- B) Enceladus (moon of Saturn)
- C) Phobos (moon of Mars)
- D) Titan (moon of Saturn)

5. Valles Marineris, a system of canyons on Mars, is so extensive that if it were on Earth, it would stretch across the entire continental United States. What is its approximate length?

- A) 1,000 km
- B) 2,500 km
- C) 5,000 km**
- D) 10,000 km

6. Which dwarf planet in the asteroid belt is the largest object there and has a significant influence on the belt's dynamics?

- A) Ceres**
- B) Eris
- C) Haumea
- D) Makemake

7. Saturn's moon Titan is unique for possessing a dense atmosphere and stable bodies of liquid on its surface. What is the primary component of these surface liquids?

- A) Water ice slush
- B) Liquid water
- C) Liquid methane and ethane**
- D) Molten sulfur

8. The Kuiper Belt is a region of icy bodies beyond Neptune. What is the approximate inner edge of the Kuiper Belt, in Astronomical Units (AU) from the Sun?

- A) 5 AU
- B) 15 AU
- C) 30 AU**
- D) 50 AU

9. The heliosphere is the vast bubble of solar wind that surrounds our Solar System. What lies beyond the heliosphere?

- A) The Oort Cloud
- B) The interstellar medium**
- C) The Andromeda Galaxy
- D) The galactic plane

10. Which terrestrial planet exhibits the most extreme temperature variations between its day and night sides due to its lack of a substantial atmosphere and slow rotation?

- A) Mercury**
- B) Venus
- C) Mars
- D) Earth