

# Space Trivia Questions

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## 1. What type of galaxy is the most common in the universe?

Elliptical galaxies

*Galaxies are categorized as elliptical, spiral, or irregular. There are at least two trillion galaxies in the universe. Each galaxy is bound by gravity and consists of stars, dust, interstellar gas, and dark matter. They range in size from a few billion stars to one hundred trillion stars. The oldest and most distant observed galaxy is actually 32 billion light years from Earth and is located in the constellation Ursa Major.*

## 2. What is the coldest place in the universe? (Hint: It's a nebula.)

The Boomerang Nebula

*The Boomerang Nebula is one degree Kelvin which is -458 degrees Fahrenheit or -272.15 degrees Celsius. It is located in the Centaurus constellation and is colder than the background temperature of deep space.*

## 3. The hottest place in the universe is located in which constellation?

The constellation Virgo

*The hottest place in the universe is actually a cloud of gas surrounding a swarm of galaxies that are clustered together in the Virgo constellation. The temperature there reaches 300 million degrees Celsius. The cloud is believed to have been formed as a result of colliding galaxies going at speeds of 2,500 miles per second.*

## 4. How old is the universe in light years? (Plus or minus 1 billion light years.)

13.8 billion light years old

*Scientists used various methods to estimate its age. These included methods such as measuring the composition of matter and energy density in the universe. Scientists also studied the oldest objects in space to help calculate its age. For example, they measured the age of some of the oldest known stars since there is a set method of determining the life cycle of a star based on its mass.*

## 5. What percent of the universe is dark matter? (Plus or minus 2%.)

27%

The rest of the universe is around 68% dark energy, and less than 5% of the universe is made up of what we would consider “normal” matter. This means that roughly 80% of the mass of the universe is made up of material we cannot see.

## Solar system trivia

### 6. How many planets are in the Solar System?

Eight planets

Four are terrestrial planets which include Mercury, Venus, Earth and Mars. The other four are giant planets which include Jupiter, Saturn, Uranus and Neptune. Jupiter and Saturn are gas giant planets, and Uranus and Neptune are ice giant planets. Pluto was declassified as a planet in August 2006. Sorry Pluto! In 2014, the hypothetical planet dubbed Planet Nine was discovered, but its existence has not yet been confirmed.

### 7. What is the largest planet in our solar system?

Jupiter

Jupiter is the largest planet in our solar system in terms of mass, volume, and surface. Jupiter’s diameter is roughly 11 times that of Earth. Jupiter’s mass is one thousandth that of the sun but 2.5 times the mass of all the planets in our solar system combined. Jupiter also boasts the largest moon in our solar system with its moon Ganymede.

### 8. What is the smallest planet in our solar system?

Mercury

Mercury only has an equatorial radius of 1,516 miles. This means that Mercury is actually smaller than Jupiter’s largest moon, Ganymede.

## Star trivia

### 9. What is the most common type of star found in the Milky Way?

Red dwarf stars

Red dwarf stars make up an estimated  $\frac{3}{4}$  of all stars found in the Milky Way. The surface temperature of red dwarf stars is less than 4,000 Kelvin, and they have a very low luminosity and therefore cannot be easily seen. In fact, from Earth not one red dwarf star can be seen with the naked eye. Since they develop very slowly and are constant for trillions of years, there are actually no advanced stars of this type in our universe because our universe is too young!

## **10. What is the largest type of star in the universe?**

Red supergiant stars

They have the largest volume of all the stars in the known universe and are classified as K or M spectral types. Red supergiant stars are several hundreds, to over a thousand times, the radius of our sun. Many scientists believe that the star UY Scuti is the largest red supergiant star in the universe. It has a volume 5 billion times that of our sun.

## **11. What is the closest star to the Sun?**

Proxima Centauri

Proxima Centauri is a red dwarf star located in Alpha Centauri system, which is in the Centaurus constellation. Alpha Centauri is actually a triple star system with Proxima Centauri being the closest to the sun. It is 4.24 light years away from the sun, and is not visible to the naked eye from Earth.

## **12. What has a gravitational pull so strong that even light cannot escape it?**

A black hole

Black holes are one of the deadliest things in the universe. They are formed when a star with a mass more than three times that of our sun dies and collapses onto itself after an explosion called a supernova. Black holes can siphon the gas out of stars until they vanish. They can even break apart and swallow planets. And you have no idea how hard it was to refrain from making a "yo mama" joke for this question...

# Space flight trivia

## **13. Which NASA space flight was the last manned mission to the moon?**

Apollo 17

Apollo 17 launched on December 7, 1972 as the first night launch done by NASA. It was also the final mission of NASA's Apollo program. Apollo 17 was the last time humans traveled beyond low Earth orbit. The mission also boasted that at the time it had the longest moon landing, largest lunar samples, longest time in orbit, and the longest total moonwalks.

**14. What is the longest continuous time a human has spent in space? (Plus or minus 20 days.)**

437 days

*This amounts to more than 14 months in space. This feat was accomplished by Valeri Polyakov, a Russian astronaut who stayed aboard the Mir space station from January 1994 to March 1995. When Polyakov retired he had over 678 cumulative days in space, and his combined space time was over 22 months.*

**15. What is the farthest distance from Earth a manned mission has traveled? (Plus or minus 20,000 miles.)**

248,655 miles

*This was achieved during the Apollo 13 mission which launched on April 11, 1970. During the mission an oxygen tank exploded. The explosion forced the crew to abort its mission to land on the moon, and the trial of the crew attempting to get home safely has been widely publicized. The Apollo 13 mission launched at 13:13 military time, and the explosion occurred two days after launch on April 13, 1970. That's a lot of 13's if you are the superstitious type!*

**16. How many minutes was the shortest space flight?**

15 minutes

*This occurred on May 5, 1961 when Alan Shepard achieved an altitude of 115 miles in NASA's Freedom 7. He was also the first American in space. Shepard later went on to become the oldest person to walk on the surface of the moon. He achieved this in 1971 during the Apollo 14 mission. At the time, he was 47 years old.*

## Moon trivia

**17. How many moons are in our Solar System? (Hint: It's over 50.)**

181 moons

*These moons (also known as natural satellites) vary greatly in size and quantity per planet. For example, the largest moon is Jupiter's Ganymede, and the smallest is Mar's Deimos. Ganymede has a diameter of 3,273 miles, and Deimos has a diameter of 7 miles.*

## 18. How many moons does Jupiter have?

67

*Jupiter has the most moons in our solar system, followed by Saturn which has 62 moons. Mercury and Venus have no moons. Mars has 2. Uranus has 27. And Neptune has 14.*

## 19. What is the diameter of the Earth's moon?

2,159 miles

*Earth's moon is 27% the size of Earth, and it is the fifth largest planetary satellite in our Solar System. Also, the moon's gravitational force is only 17% that of Earth's gravitational force. This means that a person who can jump 10 feet on Earth can jump almost 60 feet on the moon!*

## 20. What is the largest crater on Earth's moon?

The South Pole-Aitken basin

*It is an impact crater that is the largest, deepest, and oldest crater on the moon. The South Pole-Aitken basin is also the largest known crater in our Solar System. The crater is 1,600 miles in diameter and 8.1 miles deep in some areas.*

## 21. What are the dimensions in inches of the first footprint on Earth's moon?

13 by 6 inches

*The footprint was left by Neil Armstrong during the Apollo 11 mission in 1969. Apollo 11 was the first space flight that landed humans on the moon. It also ended the Space Race between the Soviet Union and the United States of America.*

## Bonus question

## 22. What flavor ice cream did Baskin-Robbins release in 1969 to commemorate America's landing on the moon?

Lunar Cheesecake

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