

Demography of the Cosmos

Astro-demographics · Answer Key · 10 Questions

1. As of 2024, which classification describes the majority of confirmed exoplanets discovered in the Milky Way?

- A) Super-Earths
- B) Gas Giants
- C) Terrestrial planets

D) Sub-Neptunes

2. What is the approximate 'population' density of stars in the core of a globular cluster compared to the solar neighborhood?

- A) 10 times higher
- B) 100 to 1,000 times higher**
- C) 10,000 times higher
- D) 1,000,000 times higher

3. In the context of stellar demography, what percentage of stars in the Milky Way are estimated to be M-dwarfs?

- A) About 15%
- B) About 40%
- C) About 75%**
- D) About 95%

4. Which planet in our solar system has the highest density of confirmed natural satellites (moons) as of recent IAU counts?

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

5. What is the estimated 'demographic' distribution of galaxy types in the observable universe?

- A) 70% Elliptical, 20% Spiral, 10% Irregular
- B) 20% Elliptical, 70% Spiral, 10% Irregular**
- C) 10% Elliptical, 20% Spiral, 70% Irregular
- D) 50% Elliptical, 50% Spiral

6. Among the known asteroid population in the Solar System, which region contains the highest count of objects?

A) The Kuiper Belt

B) The Oort Cloud

C) The Main Asteroid Belt

D) The Trojan points of Jupiter

7. What is the approximate age distribution of the 'population' of stars in the thin disk of the Milky Way?

A) 0 to 2 billion years

B) 1 to 8 billion years

C) 8 to 12 billion years

D) 12 to 13.5 billion years

8. Which taxonomic class of stars accounts for the smallest fraction of the stellar population in the solar neighborhood?

A) O-type stars

B) K-type stars

C) M-type stars

D) G-type stars

9. In astronomical terms, what is the estimated 'population' count of galaxies within the observable universe?

A) 100 million

B) 10 billion

C) 2 trillion

D) 100 trillion

10. When analyzing the orbital distribution of exoplanets, which semi-major axis distance exhibits the 'planet desert' phenomenon?

A) Inner 0.1 AU

B) Between 1 and 2 AU

C) Between 5 and 10 AU

D) Beyond 30 AU