

AstroStarCluster

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Saturday 3rd November, 2018



Latex markup at

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1 Quiz

1. A grouping with 100 thousand stars would probably be a¹
 - A. elliptical galaxy
 - B. dwarf galaxy
 - C. A-B association
 - D. open cluster
 - E. globular cluster**
2. Many stars in a typical open cluster are nearly as old as the universe²
 - A. True
 - B. False**
3. Many stars in a typical globular cluster are nearly as old as the universe³
 - A. True**
 - B. False
4. The number of globular clusters in the Milky way galaxy is about⁴
 - A. 1,500
 - B. 150**
 - C. 15 thousand
 - D. 15 million
5. The location of open clusters can be described as⁵
 - A. uniformly distributed in a sphere centered at the Milky Way's center
 - B. in the spiral arms**
 - C. between the spiral arms
 - D. uniformly distributed within the galactic disk
6. Stars can "evaporate" from a cluster. What does this mean?⁶
 - A. The gravitational attraction between stars evaporates the gas from stars
 - B. The solar wind from neighboring stars blows the atmosphere away
 - C. Close encounters between 3 or more cluster members gives one star enough speed to leave the cluster**
7. A grouping with a hundred stars is probably a⁷
 - A. elliptical galaxy
 - B. dwarf galaxy
 - C. A-B association
 - D. open cluster**
 - E. globular cluster
8. If gravity is what holds stars in a cluster together, what is the most important process that causes them to spread apart?⁸
 - A. random motion**
 - B. solar wind

- C. magnetism
 - D. anti-gravity
 - E. supernovae
9. Members of an open cluster feel significant forces only due to gravitational interaction with each other⁹
- A. True
 - B. False**
10. Members of an open cluster feel significant forces from nearby giant molecular clouds¹⁰
- A. True**
 - B. False
11. Members of a globular cluster tend to be¹¹
- A. young
 - B. old**
 - C. of all ages
12. Members of a globular cluster tend to have¹²
- A. low mass**
 - B. high mass
 - C. a wide range of masses
13. In 1917, the astronomer Harlow Shapley was able to estimate the Sun's distance from the galactic centre using¹³
- A. open clusters
 - B. globular clusters**
 - C. a combination of open and globular clusters
14. Most globular clusters that we see in the sky orbit _____ and have _____ orbits¹⁴
- A. the center of the Milky way ... nearly circular
 - B. the center of the Milky way ... elliptic orbits**
 - C. within the disk of the Milky way ... nearly circular
 - D. within the disk of the Milky way ... elliptic orbits

2 Attribution

Notes

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