



Daily Article (Bharath's Reading list) - Answers and Explanations 13.09.2023

Article link : <https://bit.ly/3Rkr2U5> (Your guide to the types of stars, from their dusty births to violent deaths)

1. Which of the following is not mentioned in the article as a factor that determines the trajectory of a star's life?

- A. The amount of mass that is gathered during that stellar formation process
- B. The reactions that occur within the roiling stellar body
- C. The kind of gases it amasses and how fast its core spins
- D. None of the above

Explanation : C

Note the line, "A star moves through various designations throughout its lifetime, an evolution shaped by its original mass and the reactions that occur within the roiling stellar body." Options A and B are mentioned but C is not.

2. Based on the article, which of the following is incorrect?

- A. Brown dwarfs can be orange, red, or black
- B. Our sun is a yellow dwarf star
- C. Red giants cannot be seen with the naked eye
- D. Black holes may be as small as an atom but are super massive

Explanation: C

Refer to the line, 'Appearing more orange than red, some red giants are visible to the naked eye, such as Gamma Crucis in the southern constellation Crux (aka the Southern Cross).'

3. A star exists in its main sequence stage as long as:

- A. The outward force of gravity and inward force of nuclear fusion balance each other out
- B. The force of gravity exceeds the force of nuclear fusion and there is sufficient hydrogen gas fuel
- C. The inward force of gravity and outward force of nuclear fusion balance each other out
- D. The force of nuclear fusion exceeds the force of gravity and there is sufficient hydrogen or helium

Explanation: C

Refer to the lines, "Gravity still exerts an inward force on the newborn star, but nuclear fusion releases outward energy. For as long as those forces balance each other out, the star exists in its main sequence stage."