

1. **Explain why the $12 M_{\odot}$ star loses mass according to Figure 1.**

The mass falls sharply when the outer layers of the star become convective.

2. **Why would stellar cores increase their spin rate as they move into evolved stages?**

As the star evolves, it fuses heavier and heavier elements. Increased mass results in increases spin rate, according to maths.

3. **How much (by what factor) does Figure 5 predict that the spin rates of the inner core would increase from H burning to C burning?**

4. **From the same figure, by what factor do gravity waves halt such spinning up?**