

Lives of Stars

DUE: Q 9-14 – Friday, November 6 by 5 pm in my office mailbox (NSC 140)
Q 1-8 – Friday, November 6 by 11 pm online

READ: Chapter 12

HOMEWORK:

Answer questions 1-5 on-line at the MasteringAstronomy website.

Answer questions 6-11 on a separate sheet; **sign the honor code in full at the end; sign your name on back.**

AUTHORIZED AIDE: You are to do your own work on this assignment. You may refer to your textbook. If you have difficulty with a question, you may discuss it with me or with another student, but you must write your own answer, in your own words.

TO DO ON-LINE

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| 1. Star formation | (2 points) |
| 2. Life of high-mass star | (1 point) |
| 3. Life of low-mass star | (1 point) |
| 4. Differences between low and high-mass stars | (2 points) |
| 5. Differences between proto-stars and main-sequence stars | (2 points) |
| 6. High-mass stars | (2 points) |
| 7. Star birth | (2 points) |
| 8. Visual understanding | (4 points) |

TO HAND IN

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| 9. Describe how a star forms. Begin with a denser region in a molecular cloud and trace the formation up to the point at which the newly formed star reaches the main sequence phase. Include the processes going on inside the forming star | (3 points) |
| 10. Text 12-6 | (3 points) |
| 11. Text 12-10 (include a hand-drawn copy of the H-R diagram in Fig. 12-12) | (3 points) |
| 12. Text 12-8 (planetary nebula) | (2 points) |
| 13. Text 12-11 (high-mass vs. low-mass stars) | (2 points) |
| 14. Text 12-15 (supernova) | (3 points) |

In chapter 12, the “Surprising Discoveries” and “Quick Quiz” sections are good study tools and reviews. I recommend that you look over these, perhaps with a partner or in a study.

I encourage you to see me or the tutor for help to see that you understand these.

Help Session (with Prof. Hrivnak): Tuesday, Nov 3, 4:30-5:30 pm in NSC 119.

Tuesday, Nov 3, 8:00-9:00 pm in NSC 119.

Tutorial Session (with tutor): Thursday, Nov 5, 7:00-8:00 pm in NSC 119.

Friday, Nov 6: Special speaker at 7:30-8:30 pm in NSC 224 (remember Short Project 2, 3)

“Dark Energy” by Dr. Peter Garnavich, Notre Dame University