

Jovian Planets, Solar System “Debris” & Search for Other Planetary Systems

DUE: Q 11-14 – Friday, October 9 by 5 pm in my office mailbox (NSC 140)
 Q 15-17 – Monday, October 12 by 5 pm in my office mailbox (NSC 140)
 Q 1-10 – Monday, October 12 by 11:59 pm online

READ: Chapters 8, 9, 6.5, 7.5

HOMEWORK: Answer questions 1-10 on-line at the MasteringAstronomy website.

Answer questions 11-16 on a separate sheet; **sign the honor code in full at the end.**

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. | Jovian planets | (1 point) |
| 2. | Jovian moons | (2 points) |
| 3. | Rings of Saturn | (1 point) |
| 4. | Jovian planets | (5 points) |
| 5. | Jovian planets | (3 points) |
| 6. | Comets | (2 points) |
| 7. | Asteroids, meteors, comets | (2 points) |
| 8. | Asteroids, meteors, comets | (5 points) |
| 9. | Asteroids, meteors, comets | (3 points) |
| 10. | Extrasolar planets | (2 points) |

TO HAND IN (show your work or describe your reasoning)

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| 11. | Describe the composition and structure of the interior of Jupiter. (Include a diagram.) | (2 points) |
| 12. | Describe the 4 Galilean satellites and Titan, noting the outstanding characteristics | (2.5 points) |
| 13. | Describe why Io is volcanic and what is the source of its heat. | (2 points) |
| 14. | Describe the rings of Saturn in terms of size, shape, and composition. | (2 points) |
| 15. | (a) Describe the physical properties of Pluto. | |
| | (b) Why is Pluto no longer classified as a planet? | (2 points) |
| 16. | Describe the physical structure of a comet. (Include a diagram) | (2 points) |
| 17. | Regarding the search for planets around other stars, describe | |
| | (a) the methods used | |
| | (b) what we have found. | (3 points) |

In chapters 8 and 9, 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 group (if we don’t review them in class).

Help Session (with Prof. Hrivnak): Tuesday, Oct 6, 4:30-5:30 pm in NSC 119

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

Test Review Session (with Prof. Hrivnak): Tuesday, Oct 13, **8:00-9:00** pm in NSC 119

Test: Wednesday, Oct 14, covering Chapters 6-9

Office Hours (with Prof. Hrivnak): Wed 10-11 am, Wed 2-3 pm, Fri 10-11 am in NSC 140