

# Practice Questions for the Final Test of ASTRO 1010, Fall 2015

There are 2 questions per chapter,  
the final test will have 3 questions  
per chapter (42 total)

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- b) about a minute
- c) about 8 minutes
- d) about a day
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# Chapter 1

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- a) The Sun, the Milky Way, Alpha Centauri, Pluto, the Andromeda galaxy
- b) The Sun, Alpha Centauri, Pluto, the Andromeda galaxy, the Milky Way
- c) The Sun, Pluto, Alpha Centauri, the Milky Way, the Andromeda galaxy
- d) Pluto, the Sun, Alpha Centauri, the Milky Way, the Andromeda galaxy

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- a) the Big Dipper.
- b) the Zenith.
- c) the brightest star in the sky.
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# Chapter 3

Upon its publication in 1543, the Copernican model was immediately accepted by most scientists because its predictions of planetary positions were essentially correct.

- a) Yes, and it was therefore subsequently referred to as the "Copernican revolution."
- b) Yes, and it was subsequently used by navigators to explore the New World.
- c) Yes, because there was a growing recognition that the Ptolemaic model was inaccurate.
- d) No, it was not substantially more accurate than the Ptolemaic model.
- e) No, it was only after spacecraft explored the solar system that scientists were convinced of its validity.

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- d) goes up and down over the course of each day.
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What produces *acceleration* in a car?

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## What causes the tides?

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- b) gravity from the Moon pulling on the oceans
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How is the isotope  $^{14}\text{C}$  different from  $^{12}\text{C}$ ?

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# Chapter 5

If the Sun's surface became much hotter (while the Sun's size remained the same), it would emit more ultraviolet light but less visible light than it currently emits.

- a) Yes, because the visible light would be absorbed by the Sun's warmer surface.
- b) Yes, because the Sun's warmer surface would emit more ultraviolet light and less visible light.
- c) No, the Sun's warmer surface would emit less light at all wavelengths.
- d) No, the Sun's warmer surface would emit more light at all wavelengths.
- e) No, because if the Sun's size remained the same, the amount of light emitted would remain the same at all wavelengths.



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The largest optical telescopes are designed to have

- a) high magnification, large collecting area, and high angular resolution.
- b) high magnification, large collecting area, and low angular resolution.
- c) low magnification, large collecting area, and low angular resolution.
- d) large collecting area and high angular resolution-the magnification is of secondary importance.
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What does *better angular resolution* mean?

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- b) things look smaller
- c) you can see smaller details
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## Most of the solar system's planets

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- b) are made of gas.
- c) orbit the Sun in the same direction.
- d) rotate in the same direction as they orbit the Sun.
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Why could the jovian planets grow to be much larger than the terrestrial planets?

- a) They were farther from the Sun, where gravity was weaker.
- b) They formed beyond the *frost line* where ices could condense, so they included hydrogen compounds.
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How does an object's rate of cooling vary with size?

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What evidence is there for past liquid water is on Mars?

- a) channels that look like dry riverbeds
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## Jovian planets

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## Orbits of asteroids in the asteroid belt

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