

## Introductory Astronomy

**Homework 0: A Philosophical and Historical Introduction to Astronomy** Not to be handed in.  
Homework solutions are posted already.

- The scientific method can be schematically described as:
  - an inward spiral of theorizing and experiment/observation.
  - an integrative process.
  - a reductive process.
  - a cycle of theorizing and experiment/observation.
  - a pointless pursuit.
- “Let’s play *Jeopardy!* For \$100, the answer is: A human pursuit which has no absolute standard (although personal or local standards are common and probably essential) that, among other things, tries to extend human understanding and to give pleasure, sometimes of a very qualified sort.”  
What is \_\_\_\_\_, Alex?
  - a science
  - nonsense
  - geology
  - of no conceivable use
  - an art
- “Let’s play *Jeopardy!* For \$100, the answer is: ‘Just so’ in physics.”  
What is \_\_\_\_\_, Alex?
  - a single story by Rudyard Kipling
  - essential
  - eternal
  - fundamental
  - infernal
- Astronomy can be described as:
  - the sum totality of physics.
  - a field of applied physics.
  - other than physics.
  - fundamental physics.
  - indifferent to physics.
- Newtonian physics can be described as:
  - modern day fundamental physics.
  - an exactly true theory
  - a true approximate theory.
  - a false approximate theory.
  - both false and true.
- The following are usually considered physical sciences:
  - proctology, theosophy, and Deuteronomy.
  - proctology, immunology, and biology.
  - proctology, geology, and biology.
  - chemistry, geology, and biology.
  - chemistry, geology, and meteorology.
- It is believed by many physicists that the 2nd law of thermodynamics would \_\_\_\_\_ in other universe domains with different true fundamental physics than that of our own universe domain.
  - hold
  - not hold
  - be impossible
  - be infernal
  - be notorious
- Astronomy is often cited as the:
  - oldest exact, empirical science.
  - youngest exact, empirical science.
  - oldest inexact, empirical science.
  - youngest, inexact, colonial science.
  - oldest form of folklore.
- Moon-shaped cut marks on bones in groupings of order 30 from neolithic times (as long ago as 36,000 BCE) suggest that people then were doing astronomy by:

- a) whiling away the time.    b) counting sheep.    c) wittling.    d) counting fingers and toes.  
e) counting days of the lunar month.

10. “Let’s play *Jeopardy!* For \$100, the answer is: Stonehenge and many other prehistoric monuments suggest that the makers were doing this.”

What is \_\_\_\_\_, Alex?

- a) special relativity calculations    b) orbital physics    c) simple alignment astronomy  
d) casting horoscopes    e) receiving alien visitors from outer space.

11. “Let’s play *Jeopardy!* For \$100, the answer is: A cosmology became something of a philosophical dogma in Greco-Roman Antiquity, the Medieval Islamic and European societies, and in Europe up until the 17th century.”

What is \_\_\_\_\_, Alex?

- a) Democritean cosmology    b) Newtonian cosmology    c) big bang cosmology    d) inflation cosmology  
e) Aristotelian cosmology

12. Newtonian physics unified:

- a) thermodynamics and special relativity.    b) terrestrial and celestial physics.    c) terrestrial and substantial physics.  
d) terrestrial and Martian physics.    e) talking and walking physics.