

PHYS 1301 Midterm

The following questions will have 4 multi-choice responses. You will have up to 90 minutes.

1. Speed is defined as
2. Acceleration is different from velocity because
3. In free fall, which of the following is always independent of mass?
4. Magnetic force differs from electric force because
5. The speed of light in vacuum
6. Which of the following would indicate *random* error in an experiment?
7. The conclusion of an experiment report should
8. Which of the following best explains what is meant by an *operational* definition in science?
9. Which of the following was *not* a characteristic of the hypothetical luminiferous ether?
10. In which case would two observers *necessarily* agree about the simultaneity of two events?
11. Which of the following is *impossible* in Special Relativity?
12. What does the 'twin paradox' illustrate?
13. Energy released in a typical nuclear weapon is converted from roughly how much mass?
14. Freely moving objects are represented in space-time by world-lines of longest
15. A ball is released inside and from rest relative to a freely falling elevator. What happens?
16. Which of the following is not typically found in a galaxy?
17. The Hubble Relation states that
18. According to current measurements, the expansion of the universe is
19. Which of the following is *not* evidence for the correctness of General Relativity?
20. According to General Relativity, which of the following did *not* begin with the Big Bang?