

Name: _____

Period: _____ Date: _____

Gravity: *Einstein and Relativity* Review
Astronomy



Nerd Words:

1. The Special Theory of Relativity –
2. First Postulate –
3. Uniform Motion –
4. Second Postulate –
5. General Theory of Relativity –
6. Equivalence Principle –
7. Gravity According to General Relativity –

Review Questions:

1. When was Albert Einstein alive?
2. What two concepts did he connect?
3. Whose work did he revise?
4. What “crowned” scientific theory is he credited for?
5. What did Einstein study that got him hooked on understanding relativity?
6. Explain the first postulate in your own words. What does it mean?
7. Give an example of what the first postulate means outside of the ones used in class and the textbook.
8. The principle of relativity cannot be experimented if what isn’t present?

9. The principle of relativity means that all motion must be what?
10. What is significant about the *fancy* version of the first postulate? Explain.
11. Explain the difference between accelerated and uniform motion.
12. Reword the second postulate into your own words. What does it mean?
13. These postulates work as long as what two things aren't extreme?
14. A moving object's mass is dependent on what?
15. Do we see this effect with objects that have a low velocity the same way we see it with objects that have a high velocity? Explain.
16. What is the famous equation associated to the second postulate? List out all variables.
17. What would the energy be for .7 kg if it traveled at the speed of light?
18. Reword the general theory of relativity into your own words. What does it mean?
19. How is the general theory of relativity different from the special theory of relativity?

20. Einstein recognized the connection between how gravity and what other force (when it comes to being able to sense it)? What is this called?

21. The mass that resists acceleration is the same mass as what?

22. What three things are all associated together which explains the way space is connected with time?

23. Space time is sometimes referred to as what? How does this relate to accelerated mass? Explain.