

Physics - Spring Semester 2009 Exam Review

Electric Charges and Fields

1. How is something positively or negatively charged
2. Charging by contact
3. What does the electric field between two parallel plates look like?
4. Problems: Distance and Force between charges

Current Electricity

5. Define voltage
6. Ohm's Law relationship
7. Problems: Solve Ohm's Law; Power

Series and Parallel Circuits

8. Series Circuit relationships
9. Parallel Circuit relationships
10. Series - Parallel circuit relationships
11. Problem: Solve Series and parallel resistance

Magnetism

12. How can you tell if something is magnetized?
13. Right hand rule

Electronics

14. Define Schematic Diagrams
15. Define capacitance and dielectric effects
16. Define diodes
17. Define resistors
18. Characteristics of transistors
19. Problems: Solve capacitance

Waves and Sound

20. Characteristic of transverse and longitudinal waves
21. Define and understand the Doppler effect
22. Problems: Echo – speed of sound, period, frequency

Reflection and Mirrors

23. Define virtual images and real images
24. Characteristics of images formed by mirrors
25. concave and convex mirrors
26. Problems: image distance, Focal point, magnification

Refraction and Lenses

27. Characteristics of images formed by lenses
28. How do prisms separate colors?
29. Why do you see color?
30. Problem: solve index of Refraction

Nature of Light

31. Wave theory
32. Modern view
33. Problem: Diffraction grating