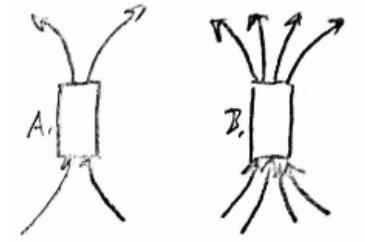


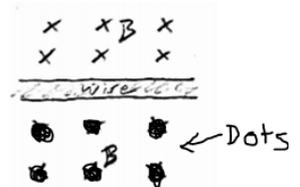
Magnetic Fields

1. What is the symbol for magnetic field?  
 a. M    b. B    c. I    d. F    e. E
2. Compared to magnet A, magnet B is \_\_\_\_\_.  
 a. The same strength    b. 2x stronger    c. 1/2 as strong    d. 4x stronger    e. 1/4 as strong
3. A compass needle is a small magnet. Which of the compass' poles points in the general direction of the Earth's North Geographic Pole?  
 a. The needle's north pole    b. The needle's south pole



Right Hand Rules

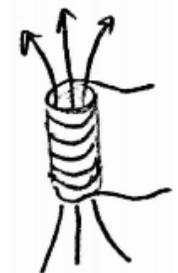
10. Given the magnetic field, B, what is the direction of the current in the wire on the right?  
 a. Leftward    b. rightward



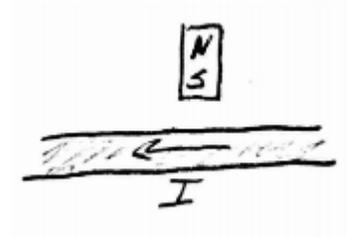
11. What is the direction of the magnetic field inside the solenoid?  
 A. upward    B. Downward



12. Relative to an observer looking downward through the solenoid, which way is current traveling?  
 a. Clockwise    b. Counter-Clockwise



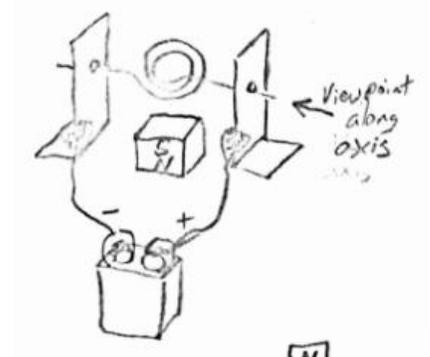
13. What is the direction of the force acting on the wire?  
 a. Upward (Toward the top margin of this paper)  
 b. Downward (toward the bottom margin of this paper)  
 c. Into the paper  
 d. Out of the paper  
 e. Leftward



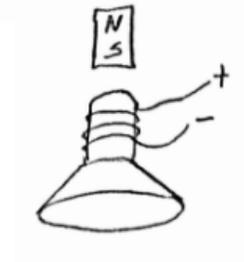
15. What is the direction of the magnetic field.?  
 A. Leftward    B. Rightward    C. Into the Paper    d. Out of the paper



16. In which direction will the motor rotate when viewed along the axle in the indicated direction?  
 A. Clockwise B. Counter-Clockwise



18. In which direction will the voice coil and speaker be pushed by the permanent magnet?  
 A. Upward B. Downward C. Leftward  
 D. Rightward E. Clockwise

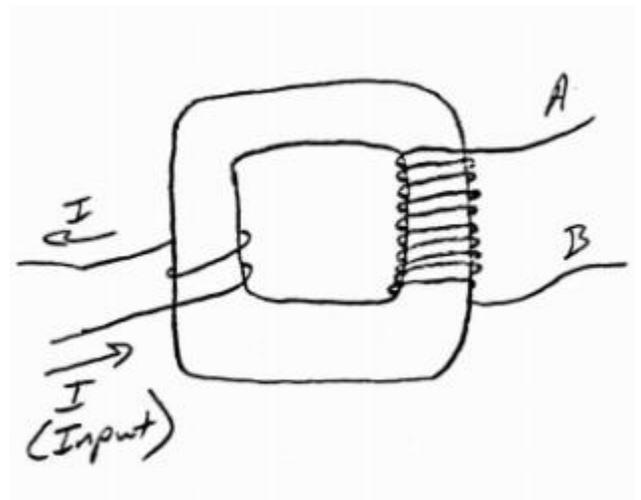


Transformers

32-33. The source current entering a transformer is shown on the right. If we assume that current is **decreasing**...

32. Is this transformer increasing voltage or decreasing voltage? A. Increasing b. Decreasing

33. In terms of voltage, how much stronger is the high voltage coil, compared to the lower voltage coil?  
 A. 2x B. 3X C. 4X D. 5X E. 6X



Answers:

- 1. B
- 2. B
- 3. A
- 10. A
- 11. A
- 12. B
- 13. C
- 15. D
- 16. A
- 18. A
- 32. A
- 33. D