Static Electricity Review Worksheet

- 1. What is a force? Give an example of an electric force.
- 2. What is meant by saying an object has an electrical charge? Give an example of how you could charge an object.
- 3. Define static electricity. How could you test to see if something has a static charge?
- 4. What is an electrical discharge? What evidence is there that a static discharge has taken place?
- 5. What are the laws of electric charges?
- 6. What is an electric field? How do we represent the strength of an objects electric field?
- 7. Draw in the electric field lines for the following charged spheres:

α.



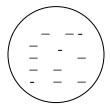
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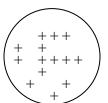


8. Draw the electric field between the following charged spheres:

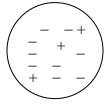
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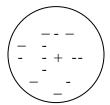
b.





C.





- 9. What does "static" electricity mean?
- 10. What are two kinds of electric charges?
- 11. What particles in the atom move when electrical charge is transferred from one atom to another?
- 12. Explain and provide an example of the three ways in which objects can become electrically charged?
- 13. What is an insulator? Conductor? Give two examples of each.
- 14. Name and explain two ways to discharge objects.
- 15. What is the unit of electric force?
- 16. What is the law of conservation of charge?
- 17. Why does someone's hair stand on end when touching a van de Graff generator?
- 18. A van de Graff generator can generate a voltage of 100 200 000 Volts. Why is it safe to get shocked by it?
- 19. What is lightning? What are the names of the three possible discharges of lightning?