

Electrostatics : W.S.-20

- 1) What is amber?
- 2) What is the Greek word for amber?
- 3) Who first noticed that amber will attract small pieces of straw when rubbed?
- 4) Who first suggested that there were two types of electricity?
- 5) Which scientist first gave names to the two types of electricity?
- 6)a) Name the three particles that compose any atom. Give the charge, +, -, or 0.

b) Which particle is smallest?
- 7)a) How many electrons are in a helium atom?

b) How many protons are in lithium?

c) How many neutrons are in lithium?

d) How many protons are in carbon? (atomic number equals number of protons. see periodic table)
- 8)a) When glass is rubbed with silk, the charge on the silk is _____.
The charge on the glass is _____ .

b) When vinyl is rubbed with wool, the charge on the wool is _____.
The charge on the vinyl is _____ .

c) Will the vinyl attract or repel the silk?
- 9) Write down the three laws for electric charges.
- 10) When you comb your hair with a vinyl comb, the comb will attract small pieces of neutral paper. Explain.

Answers: 1) It is hardened or fossilized resin from coniferous trees.,
2) electron, 3) Thales, 4) Du Fay, 5) Franklin, 6)a) proton (+), electron (-), neutron (0), b) electron, 7)a) 2, b) 3, c) 4, d) 6, 8)a) -, +, b) +, -, c) repel (both are charged negative), 9) similar charges repel, opposite charges attract, a positively charged object or a negatively charged object will attract a neutral object, 10) The comb is vinyl. It becomes negatively charged. The paper is neutral. Neutral objects will be attracted to the negatively charged comb.