

Review Questions #1-22

Answers to Chapter 9 Review

- 1) The charge remains on the material, therefore the material stay charged. Ex: hair and balloon.
- 2) The study of static charges.
- 3) positive and negative ions.
- 4) like charges repel one another and unlike charges attract one another.
- 5) the electrons move when charges are transferred from one atom to the other.
- 6) c.
- 7) friction, contact, induction.
- 8) When objects are rubbed together which causes the charges 1 build up.
- 9) hair and balloon, wool sock and silk blouse.
- 10) list to determine the charge on different materials

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- 11) a. cotton (-) wool (+)
b. hair (+) plastic comb (-)
c. silk (+) cotton (-)
- 12) transferring a charge through touching an object.
- 13) touching a doorknob with your hand after you have rubbed your feet on carpet.
- 14) transferring charge without contact.
- 15) Example a TV screen and dust.
- 16) substance where electrons can't move freely through a material.
- 17) Rubber, plastic
- 18) substance that allows electrons to move freely through a material.

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- 19) copper, aluminum.
- 20) the air is drier, therefore the electrons are not conducted away from an object.
- 21) Two ways to discharge objects are by grounding or discharging at a point.
Grounding is when there is a wire connected from the object to the earth any charge the object receives gets transferred to the earth.
Discharging at a point is when something like a static wick is used on an airplane to remove the charges from the pointy tip into the air.