Self-Check Exercises: Lecture 41 Solutions

1) What are some considerations which might be made before instituting a security policy at a company?

Cost vs. Benefit – How much are we willing to spend to achieve a certain level of security?

Will we secure stored information *and* transmitted information, or just one or the other? How will we educate our users so that our policy is not breached from the inside? Each computer is attached to a shared medium, with a terminator on each end to absorb signal and prevent reflections. A ring topology does not have a terminator. Rather, its "ends" are connected to each other to form a ring.

2) What are some of the major components of networking security? Give descriptions of each.

Confidentiality: Intruders should not be able to understand the contents of a message. Integrity: Intruders should not be able to change the contents of a message, without the end users being aware of it.

Authentication: End users should be able to verify they are actually speaking to whom they think they are speaking to.

Availability: Services should be accessible, and not interrupted by attacks (resilience to DDoS, etc...)

3) Describe perimeter security.

This entails isolating a network from the outside world by filtering incoming and/or outgoing packets. Packets not meeting certain qualifications or requirements will be blocked by the policy (firewall).