

Outline for May 29, 2003

1. Security testing
 - a. Property-based testing
2. What is malicious logic?
3. Trojan horses
 - a. Propagating Trojan horses
4. Computer viruses
 - a. Boot sector infectors
 - b. Executable infectors
 - c. Multipartite infectors
 - d. TSR viruses
 - e. Stealth viruses
 - f. Encrypted viruses
 - g. Polymorphic viruses
 - h. Macro viruses
5. Computer worms
 - a. Original work
 - b. Internet worm
6. Rabbits and Logic Bombs
7. Countermeasures
 - a. Separate data and instructions
 - b. Limit protection domain: flow control, reduction of rights
 - i. Karger's knowledge-based subsystem
 - ii. Sandboxing
 - c. Limit sharing
 - d. Detect alteration of files
 - e. Specification-based behavior
 - i. Proof-carrying code
 - f. Statistical analysis