

Problem set 8

Name _____

Netid _____

Collaborators? _____

Problem 1: Key Rings?

- (a) How many passwords and who shares them?
- (b) How many passwords and who shares them?
- (c) Formula for a group of size N ?

Problem 2: Lottabytes

- (a) Too high, too low, or about right height, and why?
- (b) Encoding of A G C T that takes 750 MB?
- (c) What year will it be 5 yottabytes?
- (d) What year will it be 5 quettabytes?

Problem 3:

- (a) IP address in dotted decimal?
- (b) IP address in hexadecimal?
- (c) Maximum number of hosts on the network?

Problem 4: You can't get there from here

- (a) Smallest set of links to disconnect Stanford from PU?
- (b) Smallest set of routers?
- (c) Routers exactly two hops from Princeton?

(d) Shortest path from Princeton to Stanford?

(e) Longest loopless path from Princeton to Stanford?