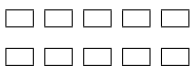
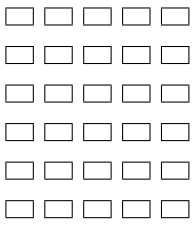
1 Tutorial 11

1. Considering the performance of your instructor in his last video taped lecture, what are his chances of making it as a leading protagonist in an epic Hollywood saga? Shade the appropriate box considering that the answer is 0/10.

   What would be his chances making a cameo appearance in Bollywood as a confused computer scientist eking a living in a tropical country. Shade the appropriate box assuming that the answer is 43/100.

2. Suppose that end-to-end (in this case machine to machine) authentication and confidentiality are required for communication *between two hosts*. If IPSec is used, show what an IPv4 datagram may look like that leaves one end point for the other. Consider one end point to be 137.132.90.23 and the other to be 137.132.87.29. Fill in as many fields in the datagram as you can.

   Discuss at a high level what a selector at host 137.132.90.23 for traffic to 137.132.87.29 looks like.

3. Suppose that you only wanted to connect to a service on a remote machine if it's running as a specified user, for example, you only want to connect to the ftp daemon on suna.comp if it's running as user root. Can you do that easily using IPSec?

4. Suppose that on a Unix machine there are three users a, b, and c. User a is cleared at the "confidential" level, b is cleared at the "secret" level, and c is cleared at the "top secret" level. User a's home directory is /home/a, similarly for b and c.

   How can you implement the MAC-style BLP policy in this setting using groups and ACLs. Consider only the SS property of BLP. In other words, c should be able to read everything under /home/{a,b,c}, b should be able to read everything under /home/{a,b} and so on.