CS 61A

Structure and Interpretation of Computer Programs

Spring 2k17

1. **(2 points)** What is a computer scientist? What is a programmer? What skills do they need?

2. **(2 points)** How should you learn in this class? What is necessary for success?

3. **(2 points)** What are some of the advantages and disadvantages to working with others?

4. **(2 points)** There is an island with three women. One woman has a red dot on her forehead and the other two women have blue dots on their foreheads.

   If a woman ever learns the color of the dot on her forehead, she must permanently leave the island in the middle of that night.

   One day, an oracle appears and says "at least one woman has a blue dot on her forehead." The women are all aware that the oracle speaks the truth. Furthermore, all of the women are perfect logicians (and know that the others are perfect logicians too). How many days does it take for everyone to leave the island?

   ----

5. **(2 points)** There is an island with 100 women. 50 of the women have red dots on their foreheads, and the other 50 women have blue dots on their foreheads.

   If a woman ever learns the color of the dot on her forehead, she must permanently leave the island in the middle of that night.

   One day, an oracle appears and says "at least one woman has a blue dot on her forehead." The women are all aware that the oracle speaks the truth. Furthermore, all of the women are perfect logicians (and know that the others are perfect logicians too). How many days does it take for everyone to leave the island?