1. (6 pts) (a) (3 pts) Draw a Venn diagram like the one on bottom of page 406 and use shading to show the set \((A \cap B') \cup (A' \cap B)\).

(b) (3 pts) Draw a Venn diagram like the one on top of page 407 and use shading to show the set \(A' \cup (B \cap C')\).

2. (8 pts) At a meeting of the Swampscott Phrenology Club, 37 members are present. Of these, 13 are wearing glasses, 4 are wearing both glasses and sandals, and 20 are wearing neither glasses nor sandals. How many are wearing sandals? (Justify your answer with a diagram and show the steps you did.)

3. (6 pts) A pair of (fair) dice is thrown. What is the probability that:
   (a) (3 pts) The sum is 7? (Explain your answer.)
   (b) (3 pts) At least one die shows a 6? (Explain your answer.)