

Name: _____

Panther ID _____

Quiz 2 - Take home - Due date: July 11 MGF-1006 Summer 2005

To receive credit you MUST SHOW ALL YOUR WORK.

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.)