1) If S and A are sets where S = {a, b, c, d, e} and A = {c, e}, write out all of the subsets of S which are not subsets of A.

2) If S, A, and B are sets where S = {a, b, c, d, e, f, g, h}, A = {a, b, c, d, e}, and B = {d, e, f, g}, find the total #(elements) for each of the following? (Note: \ is meant to be a minus in set notation).

   a. A \ B

   b. A ∪ B

   c. A^c \ B

   d. B^c ∩ B

3) A, B, and C are sets where A = {a, b, c, h}, B = {c, d, e, f, h}, and C = {a, e, f, g, h}. Use the following information for your calculations.

$$|A| = 4, |B| = 5, |C| = 5, |A \cap B| = 2, |A \cap C| = 2, |B \cap C| = 3,$$
$$|A \cap B \cap C| = 1$$

    a. #(Elements belonging to exactly 2 of these sets)

    b. #(Elements belonging to at least 2 of these sets)

    c. #(Elements belonging to all 3 of these sets)

    d. $|A \cup B|$

    e. $|A \cup B \cup C|$

4) What is DeMorgan's Law?