

Fourth Problem of the Week, due Thursday 10/05

What is the maximum number of distinct sets that can be created using **unions, intersections, and three sets** A, B, C ? (For example, $A, A \cup B$, and $(A \cup B) \cap C$ are all counted.) Explain and justify your answer.

Note: The only operations allowed are \cap and \cup . Also, you cannot use the complement of a set A , in another words, A^C symbol is not allowed.