Math 1303 - Math in the Liberal Arts

Homework #4 - 2005.09.28

Due Date - 2005.10.10

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1. Let A, B and C be sets. Find a formula for $n(A \cup B \cup C)$.

2. Draw a Venn diagram which accurately and uniquely represents ALL the possible intersections of 4 sets, A, B, C and D. *Hint: There should be 16 distinct regions!*

3. Using your diagram in problem 2, find a formula for $n(A \cup B \cup C \cup D)$.

4. Draw a Venn diagram which accurately and uniquely represents ALL the possible intersections of 5 sets, A, B, C, D and E. *Hint: There should be 32 distinct regions!*