1) What is the compliment of {a, d, f}, a 3-subset of the 7-set {a, b, c, d, e, f, g}?

2) What is the cardinality of the 3-subset from #1? What about its compliment?

3) List the 2-subsets and the 3-subsets of the 5-set {a, b, c, d, e}. Then, draw compliment connections between the subsets.

4) For any given m-subset of an n-set, what is the cardinality of its compliment?

5) What is the empty set? How do we write it? What is its cardinality? What about its compliment?

6) Derive a general formula for C(n,m) using Pascal's Triangle.

7) If A = {a, b, c, d} and B = {e, f, g}, what is A ∪ B? What about A ∩ B?

8) Based on the results from #7, what can we say about the sets A and B?

9) Using A and B above, if X = A ∪ B, what is |X|?

10) Calculate C(11,9) using the Symmetrical Property (also called the Symmetry Property).