

## VI. A. The Connecting and Distinguishing Concept of Order

### **The Connecting and Distinguishing Concept of Order**

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Order matters with respect to counting numbers, integers, place value, names of commas, common fractions, and so on. The following topics make use of the concept of order in other, varying ways:

1. Permutation (vs. combination)
2.  $(3,5) \neq (5,3)$  but  $\{3,5\} = \{5,3\}$
3. Conditional statement (order of  $p$  and  $q$  important); (compared to conjunction, disjunction, biconditional, where order of  $p$  and  $q$  is unimportant)
4. Commutative property: order important for subtract and divide, but not for add, multiply, union, intersection.
5. IX and XI -- order of symbols.
6. Find number between .03 and .04
7. Rank-order data to find median and mode
8. Order of multiplication of matrices important (not commutative)  
(as opposed to number multiplication, which is commutative)