

Subsets

- Read pages 18 through 21 (section 1.2)
- Some key questions to answer:
 1. When do we say that a set A is a subset of another set B ? How do we denote that?
 2. Is a set a subset of itself?
 3. Explain in precise terms why if A is a subset of B and B is a subset of C , then A must be a subset of C .
 4. Study example 1.5 carefully, make sure you understand it, and produce another example of it.
 5. True or False: For any two sets A, B , we must have either that A is a subset of B and that B is a subset of A (or both).
 6. How do we denote that a set is not a subset of another set?
 7. True or False: If A is not a subset of B , then none of the elements of A are in B .
 8. Is there a set that is a subset of all other sets?
 9. Does the empty set have any subsets?
 10. What is the meaning of a “universal set”?
 11. List the various kinds of intervals and write them both in interval notation and in set notation.
 12. When do we say that A is a “proper subset” of B ?
 13. Is there a set without any proper subsets?
 14. What is the “powerset” of a set A ?
- Practice problems from section 1.2 (page 31): 1.10, 1.11, 1.13, 1.17, 1.19