1. Ordered sets[Law of tricheometry]
2. Prove root(2) is irrational
3. Bounded Above
4. Bounded Below
5. Least Upper Bound
6. Greatest Lower Bound
7. **Ordered set with LUB?**
8. S is an orderd set with LUB, , B≠empty and B=bounded below
9. Field Axioms
10. Existence of LUB theorem.
11. Archidemian
12. Rational Density
13. Unique indices theorem
14. Euclidian spaces
15. Relation
16. Onto, one-one

Inverse image

1. 1-1 onto properties

Equivalence relation

1. Definition

Finite, infinite, countable, at most countable, uncountable, enumerable

1. Sequence Definition, terms,
2. Infinite set property with proof.
3. Union of set, Intersection of sets
4. Union of countable set implication; corollary
5. tuple, with proof
6. Binary uncountable theorem

Prove every countable subset of an uncountable set A is proper subset

1. Metric spaces
2. Segment, interval, k-cell, open ball B,convex
3. Neighbourhood, limit point, isolated point, closed, interior point, Open, compliment, perfect, bounded, dense;
4. Is neighbourhood closed or open? Prove
5. Infinite cardinality of Limit point thm, with proof; Corollary
6. Union of sets Compliment
7. Compliment of an open set theorem with proof
8. Union of open set and Intersection of Closed set theorem
9. Define Closure
10. Relation of with closeness (3 thms)
11. Bounded above and sup relation
12. Open Relative
13. Define: Open Cover
14. Compact Sets
15. Compact Relative
16. Compact subsets of metric spaces are closed or open?
17. Subsets and compactness relation
18. Intersection non-empty theorem of compact subsets
19. Infinite subset of Compact set implication
20. Intersection non-empty theorem of Intervals in R1
21. Intersection non-empty theorem of sequence of k-cells
22. K-cell
23. Equivalence Theorem
24. Wierstrass theorem
25. Perfect Set Definition, property
26. Cantor Set
27. Connected Set:definition
28. Connected Set properties