1 Set Theory

To demystify mathematics consider

- (i) What is a theorem?
- (ii) What is a proof?

What if we don't know the answer?

To begin we need

- (a) an example(s)
- (b) a nearly related concept

To dempetify mathematics, consider (i) What is a Theorem? (ii) What is a Proof? (ii) what is a Proof? What if we don't know we need (a) an example (s) (b) a nearby related concept Related Concept: Greek Syllogism example:

- 1. All men are mortal.
- 2. Socrates is a man.
- 3. Therefore, Socrates must die.

To analyze, recast in set theoretic terms via Venn Diagram.

Related Concept:
Theek Syllogism
Example:
(1) All men are mortral
(1) All men are mortral
(2) Locrates is a man
(2) Locrates is a must die
(3) Locrates must die
(3) Locrates must die
(3) Locrates must die
(3) Locrates must die
man diagram
via Venn diagram
via Venn diagram

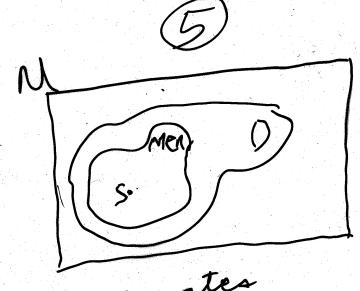


S: Socrates

M: Set of Men

D: Things that will die

 \mathcal{U} : Things on Earth



S: sociates M: set of men D: things that die U: things on earth U: things on earth

- $\mathbf{2}\quad \mathbf{Generate}\ \mathbb{N}$
- 3 From $\mathbb Z$ to $\mathbb R$ via ordering
- 4 Sequence and Limits
- 5 Limit and Convergence
- 6 Infinite Series
- 7 Metric Spaces Part 1
- 8 Metric Spaces Part 2

Call them $C_1, C_2, ..., C_L$