

Discrete Mathematics Journal

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1 Week 1

1. Syllabus is posted on the web site.
2. Assignment 1 is posted in the folder week-1.
3. The folder week-1 contains the material covered in the first week (three lectures).
4. You should understand the following concepts:
 - (a) Proposition
 - (b) Boolean variables
 - (c) Logical (boolean) operators
 - (d) Boolean function
 - (e) Truth tables.
 - (f) Logical equivalence.

The file Drill-1 contains problems you will work out in class to help you understand the concepts we covered in the first week.

2 Week-2

1. Lecture-4 and Lecture-5 will be posted by the end of the week.
2. assign2
3. An html file called logic and associated file. This is an example of logic functions in SAGE.
4. A folder logicsim. It contains an executable and three example. Copy it to your computer. It will be demonstrated in class.
5. Topics for this week:

- (a) Satisfiability.
- (b) 3-SAT satisfiability.
- (c) Logic gates.

3 week-3

1. The topic of this week is sets.
2. Lecture-5 is an elementary review of basic definition and notation of sets. Hopefully you are familiar with them.
3. Lecture-6 continues, introduces the cartesian product and relations.
4. Lecture-7 deals with functions, cardinality of sets, infinite sets. It contains some “real” proofs.
item Drill (Logic and sets) for tuesday’s session.
5. Assignment 3.