

CS 2336

Discrete Mathematics

Overview

General Info, Scope, Assessment

Outline

- **Webpage**

www.cs.nthu.edu.tw/~wkhon → Discrete Maths

- **Lecturer**

Wing-Kai Hon (wkhon@cs)

- **Meeting Times**

Lecture: Mon 1010—1200, Wed 0900—0950

Tutorial: To be announced

Outline

- **TA**

Cindy, Hsin-Pei, Henry, Terry

- **iLMS**

Announcements (exam dates, tutorial info)
will be posted through iLMS

What is the course about?

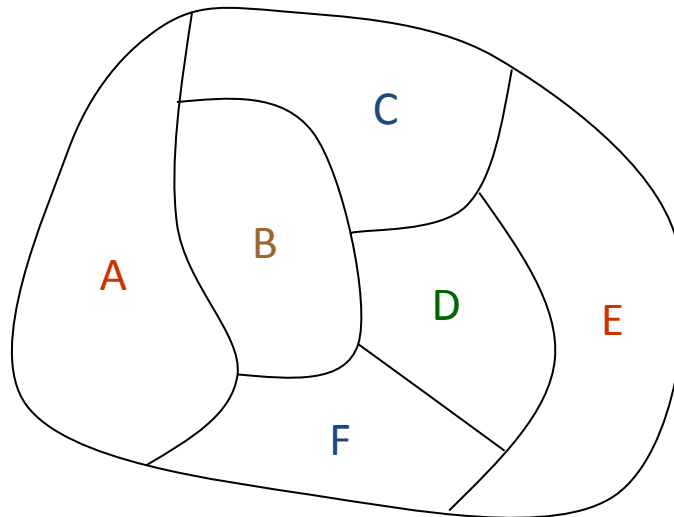
- **The study of discrete objects**

Examples:

- How to find 2013 consecutive numbers where all of them are not prime numbers?
- How to arrange a set of numbers from small to large? (This is called **sorting**)
- How to prove that a sorting algorithm is correct?
- How many steps are required in the algorithm?

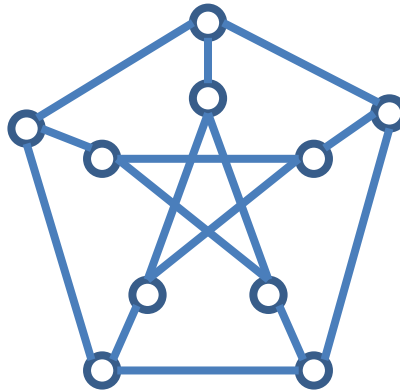
What is the course about?

- More Examples:
 - What is the shortest path between two cities using a transportation system?
 - How to color a map using only 5 colors, so that no adjacent countries have the same color?



What is the course about?

- More Examples:
 - How to show that there is no way to walk around every vertices in the following graph, by visiting each of them only once?



Petersen Graph

Topics to be covered

- Logic
- Methods of Proving
- Counting
- Set, Functions, and Relations
- Graph Theory
- Number Theory (if we have time)

Textbook & References

- **Textbook**
 - Discrete Mathematics and Its Applications,
Kenneth H. Rosen
- **References**
 - Discrete and Combinatorial Mathematics,
Ralph P. Grimaldi
 - Elements of Discrete Mathematics,
Chung-Laung Liu

Assessments

5 to 6 Assignments: 0 %

3 Exams: 2 * 40 % + 1 * 20%

Total = 100%

Tentative Exam Weeks (Mon, 2 hours)

8, 14, 18

Study Tips

- Come to every class
- **Ask questions**
- Do every assignment
- **Form study group**
- **Help the others**
- Study ahead
- Most importantly:

Like the Course, Have Fun !!