CS 2336
Discrete Mathematics

Overview

General Info, Scope, Assessment

Outline

- **Webpage**

  www.cs.nthu.edu.tw/~wkhon/math13.html
- **Lecturer**

  Wing-Kai Hon (wkhon@cs)
- **Meeting Times**

  Lecture: Mon 1530—1720, Thu 1420—1510

  Tutorial: Tue 1830—1930 (before each exam)

Outline

- **TA**

  4 regular ones: Homer, Alison, Chris, Simon

  4 hidden ones:

  – If you can discover ALL of them before the first exam, 2 extra marks in final score!

- **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?

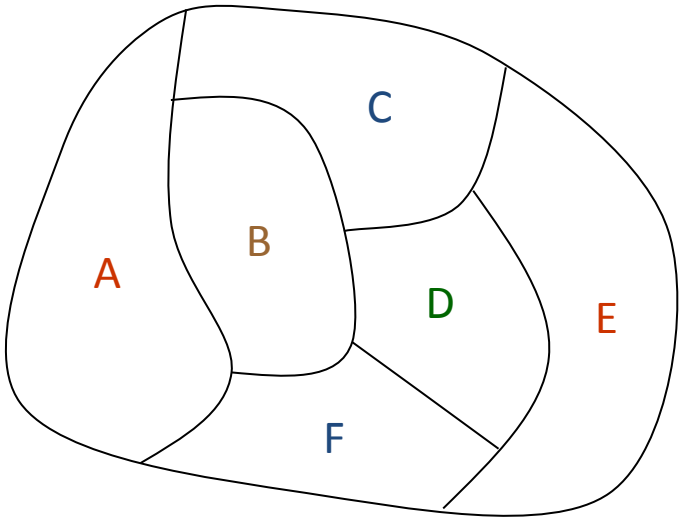
  – How to arrange a set of numbers from small to large? (This is called sorting)

  – How to prove that a sorting algorithm is correct?

  – How many steps are required in the algorithm?

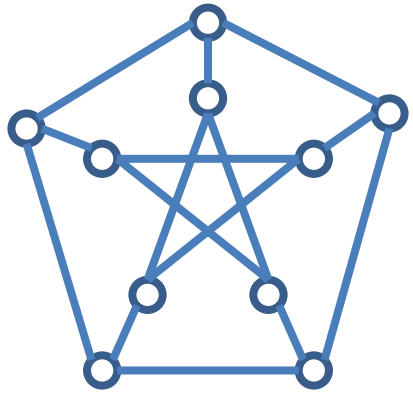
What is the course about?

- 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

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

6 Assignments:	0 %
6 Exams (Best Five):	100 %
Secret Missions:	?? %

Maximum = 100%

Tentative Exam Weeks (Thurs, 1 hour)

5, 8, 10, 12, 15, 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 !!