1. Returning The Quiz

Due: 9:30 - 11:00 AM on Friday, 12/1/2006
Across from 32-141

7:00-8:00 PM on Wednesday, 11/18/2009
Across from 32-141

Lecture 21: Part 1 - Instructions for Quiz 2
3. **General Instructions**

- This is a "Quiz": You **cannot** talk to others; no collaboration; "limited open book";

(for details see section on Academic Honesty)

- If you have questions or potential bugs email staff at

  6046-staff@csail.mit.edu

  6.046-staff@theory.csail.mit.edu
Academic honesty:

rules are just like in-class quiz, except you can take the quiz home:
- cannot communicate with anyone except course staff about any aspect of the exam, even if handed in until end of exam period: \textit{noon Friday}
- don't say "how's it going" or "tough Problem"
- easily leads to worse ~ just say no

- limited open book:
  - your course notes (including problem sets)
  - CLRS textbook
  - all materials on course website (including linked practice quizzes & papers)
  - basic references: dictionaries, calculators

\textbf{NOT ANYTHING ELSE:}
- other offerings of algorithms courses
- other algorithms books
- rest of web
- if you think you made a mistake, contact us immediately
(better you than us or someone else)

\textbf{We trust you to do the right thing — now that it’s clear what that is.}
The temptation: it’s your choice
an “easy way out” of pressure
- exam anxiety
- performance anxiety
- being evaluated/compared

“excuses”:
- other classwork / not enough time
- exam too hard
- help a weaker student
- didn’t study

Psychology of cheating
1. Imposter Syndrome
- how did I get into MIT?
- everyone’s smarter than I am
- need to make them think I belong...

RELAX: you all belong
you don’t have to do well in Quiz 2 for decent grade, or life in general
- one of my hardest classes (& why I like it)

2. Bunker Mentality
- war (psets, exams) reigns down
- bunkmates become world ~ close bonds
- distorted sense of morality

RELAX: quiz is to learn about/prove yourself
Why not to cheat:

**Practically:**
- we are good at finding cheating
- we will follow through
- you will fail & may get expelled

**Morally:**
- you choose how to live your life
- you take responsibility for your actions
- you are adults now
- don't pretend to be someone you're not
- keep MIT integrity high

**This quiz:**
- great test of algorithmic creativity
- challenge & learn about yourself
- everyone wants this exam to be fair

**Just say no to cheating**
Old survey: 78 responses

1. Did you cheat?
   76 - No
   1 - Yes
   1 - "abstain"

2. How many people do you know who cheated?
   72 - none
   1 - "3 people compared answers"
   1 - "suspect 2 but don't know"
   1 - "either 0 or 2"
   1 - "abstain" (same abstainer)
   1 - "10" (the cheater)

→ cheaters generally have inflated view of cheating

Overall: not much cheating (but does happen)

Also:
- students worked too long
- it was a great experience to devote so much energy to creativity
6.046 Lecture 21: Writing up your Solutions

- Solutions must be clear and concise
- Start each solution with an "Executive Summary" that should include:
  - Problem you are solving.
  - Techniques you are using to solve it.
  - Any assumptions you are making.
  - Running time achieved.

In general:
- Be explicit about alg. used and running time achieved.

  e.g. Instead of "sort n numbers"
  say "Sort the n numbers in \(O(n \log n)\) time using heapsort".
- When describing an algorithm, give an English Description of algorithm.

Use pseudocode only if necessary to clarify your solution.

- When describing the solution/analysis
  - Provide succinct & convincing arguments for the correctness of your solution
  - Cite algorithms / theorems from class notes / lectures when appropriate.
  - Do not include facts that are not relevant to your analysis.
- If some question is unclear, make reasonable assumptions to solve the problem.

  · State such assumptions clearly.
  · But be careful about the assumptions. An assumption that trivializes the problem will lead to little credit.

- Bugs:
  - If we discover bugs, we'll email the class. Please check your mail daily.
  - If you think you're found a bug, email us at 6046-staff@csail.mit.edu

6.046-staff@theory.csail.mit.edu
6.046 LECTURE 21 - STRATEGIES

PLANNING

- 12 hours in 4 days.
  Plenty of time to think + sleep.
  Plan your time wisely.

- Work on all problems the first day
- Budget time for writing + debugging
- Don’t get sucked into one problem
Thinking About A Problem

- Start with an upper bound, even if it is weak.
- Look for analogies with problems you’ve solved.
- Try solving special cases.
- Work out small examples.
- Try multiple ways to solve a problem.

Managing Your Psyche

- Get enough sleep.
- Maintain positive, but persistent, attitude.
- Use any nervousness productively.
Writing Up Your Solution

- Write up partial solutions
- Think of the summary first, details later
- Remember: Partial Credit
- But groom your answers: unnecessarily long answers will be penalized.

Good Luck!!