

# Tricks & Tips

# Graph Search

# Serialization

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Eclipse: <http://www.eclipse.org/>

CLR

Text, ch 12: “Object Streams”

# Administrivia

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- Lab section attendance
- Straw poll: TTC MI
- Progress meter

# Tricks & tips

- Debugging hint #1:
  - “Stop thinking and look.” -- D.J. Agans
- Huge amount of time taken up in debugging
- Often, much/most of debugging time spent *working on the wrong thing*
- Key to working on the *right* thing: actually look at what's going wrong
- Most basic way to do that: print statements
  - Painful, slow, basically sucks
- Much better: find, learn, and use a good debugger

# Group design exercise

- Design and give pseudocode for the web crawl traversal algorithm
- Don't worry about network I/O or HTML parsing
- Focus on:
  - Hitting every reachable page once
  - Not hitting any page *more* than once
  - Efficiency: small overhead per page
- Can assume methods
  - `WebPage retrievePage(String)`
  - `String[] getAllURLsInPage(WebPage)`
- (Or your favorite others)