

# Lab 1

# Formatting

- No black backgrounds
- Use serif fonts for text
- Use monospaced fonts for code
  - Block indent
- Code appears exactly as in IDE
- Label clearly in appendix.

# Printing

- Use Latex defaults
  - 12 point font
  - Single space
  - 1.5 inch margins on all sides
- Stapler

# Content

- Be careful about assumptions
  - Cite it
  - Prove it
  - State "I assume that ..."
  - Leave it out
- Compiler vs interpreter
- Stick to the prompt

# **Presentations**

# Winston on Presentations

## Pick

- Time
- The room
  - Shape matters
    - Park 227, Park 338,
    - Park 245
    - Park 300
  - A happy place

# Practice

- Pick your location
- AV issues
- Lights on
- Chat up early arrivers

# The talk

- Be Happy
- VSN-C
  - Start with Vision
  - Steps
  - News
  - Finish with Contributions



# Contributions == Conclusions

- No "thank you"
- No collaborators
  - if needed, do early

**"you have too many slides and all of them have  
too many words"**

**Winston**

**Do not read**



**No cute clip art**

**Avoid bullet lists**

**Use big fonts**

**(use even bigger fonts)**

# **Progress bars -- maybe**

**"page 1 or 12"?**



**Props**

**Titles**



**Um**

**like**

**er...**

**you know**

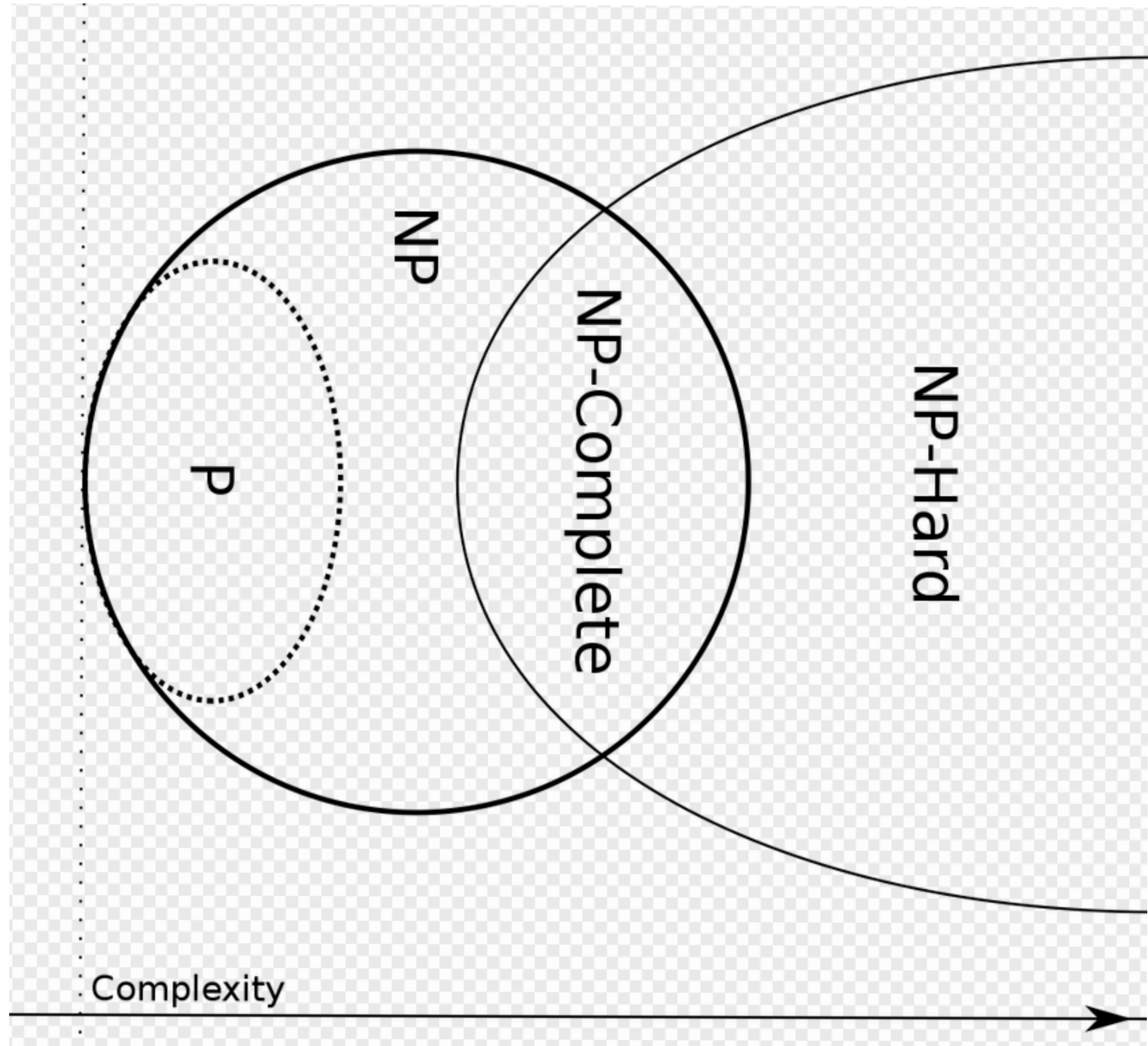
**Bellow!**  
(use a mic, practice)

**~~Monotone~~**

**~~Pockets~~**

**Time** (& space)

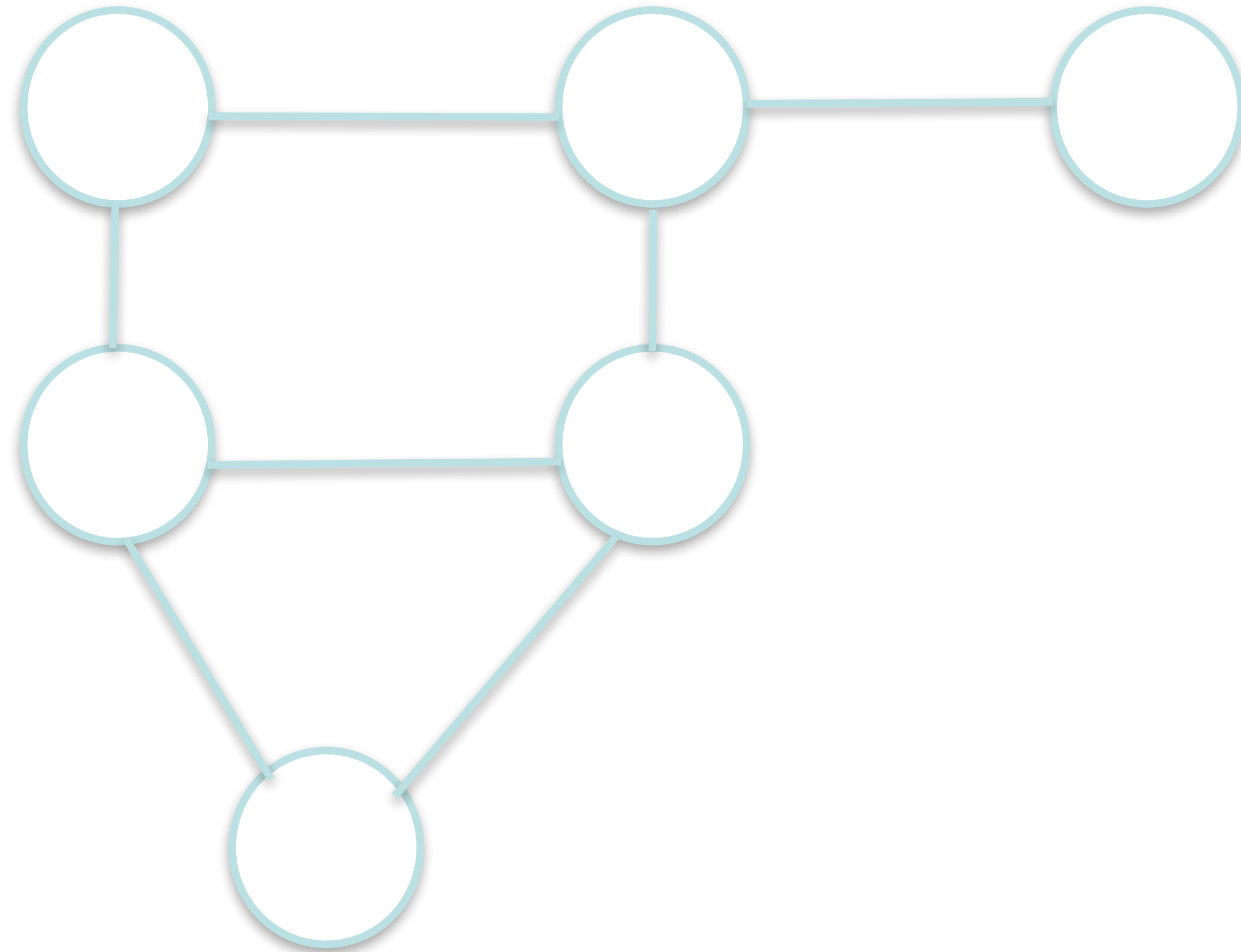
# P = NP?



# NP-Complete

- NP = Non-deterministic Polynomial
- in NP == Solution is verifiable in P time
- problem is provably equivalent to other NP complete problems

- **vertex cover** of a graph is a set of vertices that includes at least one endpoint of every edge.



# Vertex Cover Algorithm

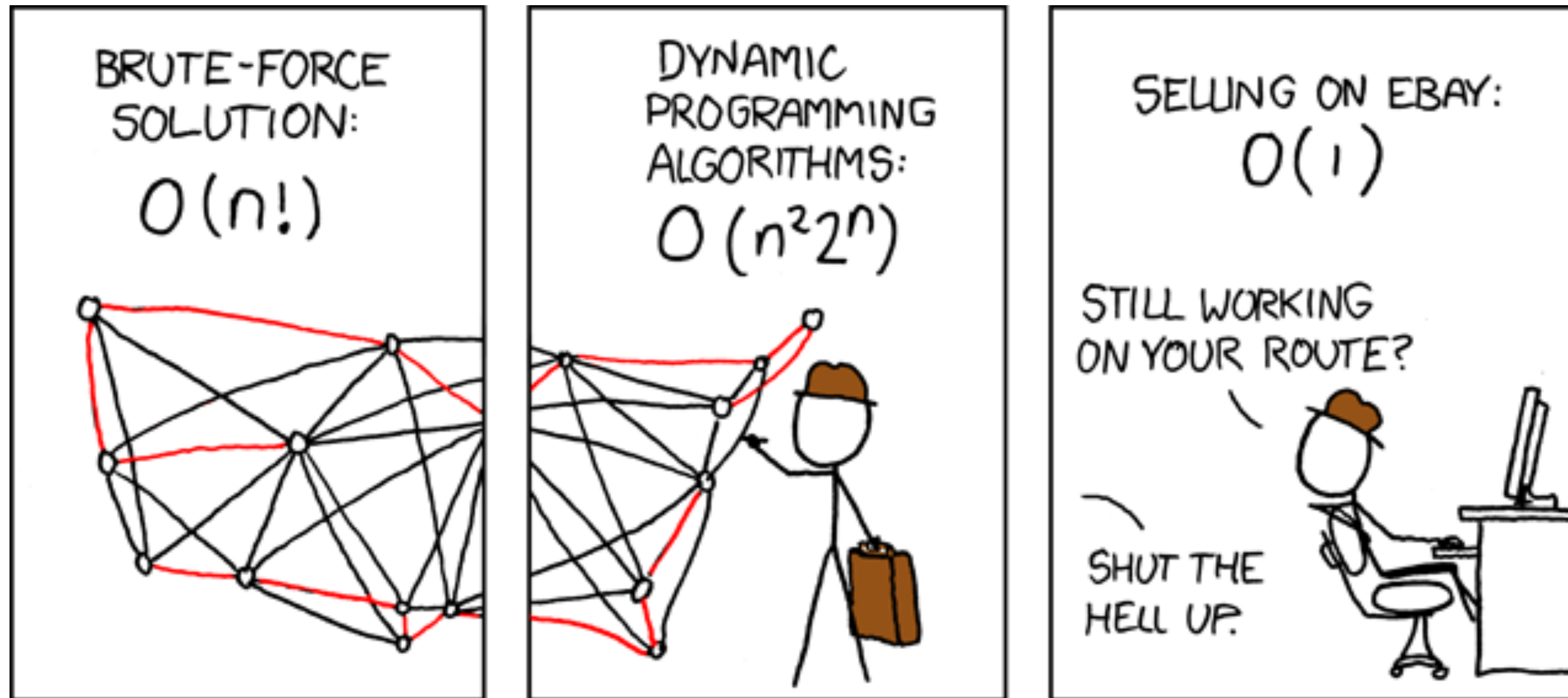
- Find the minimum vertex cover of a graph
- We will discuss graph representations, just make something up for now

# Vertex Cover Algorithms

- Optimal algorithm
- Naive algorithm
- Greedy Algorithm



# xkcd??



- [More on xkcd.com](http://xkcd.com)

# An algorithm to consider

- Given two lists of integers
- call these A and B
- Find:  $\min(\text{abs}(A[i]-B[j]))$