Slides and Resources on NP-complete Problems

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Search Problems

Reductions

- Video: Reductions 5 min
- Video: Showing NPcompleteness 6 min
- Video: Independent Set to Vertex Cover
 5 min
- Video: 3-SAT to Independent Set 14 min
- Video: SAT to 3-SAT 7 min
- Video: Circuit SAT to SAT 12 min
- Video: All of NP to Circuit
 SAT
 5 min
- Video: Using SAT-solvers
 14 min
- Reading: Minisat
 Installation Guide
 10 min

End of Module Quiz

Programming Assignment

Minisat Installation Guide

We are grateful to <u>Pham Thuong Hai</u> for these instructions.

Web-based

You may use online version of minisat here: https://msoos.github.io/cryptominisat-web/

Install minisat locally

Linux

In the terminal:

```
1  sudo apt-get update
2  sudo apt-get install minisat
3
```

MacOS

- 1. Install <u>Homebrew</u>
- 2. In the terminal:

```
1 brew install minisat
```

Windows

- 1. Install <u>cygwin</u>
- 2. Download pre-compiled minisat, rename it to minisat.exe, and copy it to C:\cygwin\bin

Check your installation

In the terminal (for Windows, after running cygwin-terminal):

1	inisathelp

Mark as completed

