23.1.2
SAT is NP-Complete
NP-Complete Problems

Question
Are there any problems that are NP-Complete?

Answer
Yes! Many, many problems are NP-Complete.
Theorem 23.7 (Cook-Levin).

\textit{SAT} is NP-Complete.

Need to show

1. \textit{SAT} is in NP.
2. every NP problem $X$ reduces in polynomial time to SAT.

Might see proof later...

Steve Cook won the Turing award for his theorem.
Cook-Levin Theorem

**Theorem 23.7 (Cook-Levin).**

*SAT* is NP-Complete.

Need to show

1. **SAT** is in **NP**.
2. every **NP** problem **X** reduces in polynomial time to **SAT**.

Might see proof later...

Steve Cook won the Turing award for his theorem.
THE END

... (for now)