Announcements

- HW6 out due Friday as usual
- Hw7 single question, due Tuesday March 17th max 1 late day

- Prelim 2: Tuesday March 24th
  - The conflicts survey is open, due on Monday, March 16th
  - Topics: stable matching, flows and applications and NP-completeness
  - Info sheet on topics and sample question in canvas

- Mid-term survey on sections (email from me with the link)

NP-complete Problem with numbers

Subset Sum and Knapsack

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To prove SAT $\leq_P$ SUBSET SUM which of the following should we do

A: take input with subset sum and construct an equivalent SAT formula

B: take input with SAT problem and construct an equivalent subset sum input

3-SAT $\leq_p$ SUBSET SUM: the idea

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Number of ways to get a subset if numbers so far to get the last n digits right

A: none

B: 1

C: n

D: 2^n

E: none of these

3-SAT $\leq_p$ SUBSET SUM: the construction

Proving construction correct