Lecture 24:
How would you do this?

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Logistics

All graded except the final project – almost there!

Nov 22: Some amusing problems

Nov 24: Thanksgiving (no class)

Nov 29: Wrap-up + start project presentation

Dec 1: Project presentations

Dec 16: Projects due

Project presentation timing

20 groups $\times$ 5 minutes/group = 100 minutes

- ▶ I'd like 5 groups to talk early!
- ▶ Send an email if interested

Project presentation logistics

- Stay short and high level – five minutes we'll all follow
- It's okay if you're not done! Point is feedback.
- Can use slides or just talk.

Project report

Goal: understand performance! I want

- A description of your problem
- Performance analysis, which might include
    - Serial tuning and reorganizations
    - Strong and weak scaling experiment (speedup plots!)
    - Profiling of communication and computation
    - Tuning of parallelism (communication, synchronization, etc)
    - Comparison to analytical models
    - Comparisons between alternate organizations
- Something finished by Dec 16.

How would you do this in parallel?

- Compute an array of partial sums from a long input?
- Solve a large tridiagonal linear system?
- Partition an imbalanced quadtree?
- Implement the sieve of Eratosthenes?
- Solve a crossword puzzle?
- Find all the words on a Boggle board?
- Write a parallel `make` variant?