

## Class 11: More Mining

### Schedule

**Wednesday, September 30:** Checkup 2 revisions (if desired), due at the beginning of class or end of office hours today.

**Friday, October 9:** Problem Set 2 (moved from original deadline of October 2). Problem Set 2 will be posted by tomorrow.

**Monday, October 19:** Midterm Exam

No classes Monday, October 5!

Note: ink markings may not appear in the embedded viewer. To see them, [download the slides](#).

### Notes

If we have 20% of the network hashing power, calculate the proportion of blocks we will win if we mine selfishly. Do we come out ahead or behind?

Why does our formula for  $E$  not work for  $\alpha$  greater than a half?

Compute the constant on slide 29, “Expected share reward”. You may have to look up the Taylor’s expansion series for natural logarithm.

Does mining in a pool increase your reward or decrease it? Explain.

If a pool is paying out proportionally, and you are profiting by pool hopping in and out of it, is somebody else making a loss? Who and how?