

# Math 233 — Worksheet (Week 1)

## Project 1

DEADLINE: 0900 FRIDAY 24 FEBRUARY

### 1 Reading

- Read chapters 1 and 2 of [https://www.cims.nyu.edu/~regev/teaching/discrete\\_math\\_fall\\_2005/dmbook.pdf](https://www.cims.nyu.edu/~regev/teaching/discrete_math_fall_2005/dmbook.pdf)
- Do the exercises in the book and be prepared to answer questions on them or questions like them. I will assume that you have done this before lecture 2, and therefore may ask questions on them in a quiz.

### 2 Project 1

There is no requirement to submit your answers. The level of copying means that grading homework is meaningless. But your answers will affect your quiz grades and those will be assessed.

- Play Nim with your friends and family and beat them. Be prepared to play and win.
- What is the strategy to win?
- Why does this strategy work?
- Can you *prove* that it works?

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