

## Outline for October 17, 2012

**Reading:** §7

**Assignment due:** October 24, 2012 at 5:00PM

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1. How to write a program
  - a. Problem statement: be explicit, specify exactly what the program needs to do
    - i. Goal
    - ii. Specification
  - b. Design: state how the program will work in high-level terms
    - i. High-level design: what does the program actually *do*?
    - ii. Data: how do you represent the data?
    - iii. Functions: What functions do you need?
    - iv. Refinement: refine until the design can be translated into code
  - c. Implementation: translate the statement into Python code
2. Example: Cæsar cipher
  - a. How it works
  - b. Encipher [*caesarenc.py*]
  - c. Decipher [*caesardec.py*]