

## Outline for January 23

**Reading:** *none*

**Assignments:** Homework 2, due on February 1 at 11:55pm

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1. Calculating  $\pi$  using a Monte Carlo method
  - a. Building program in modules, including testing routines
  - b. First step: computing co-ordinates of dart toss [*mc1.py*]
  - c. Second step: see if a point falls within the unit circle [*mc2.py*]
  - d. Third step: read in a positive integer, with error checking [*mc3.py*]
  - e. Fourth step: out it all together and print the results [*mc4.py*]
  - f. Fifth step: plot the points [*mc5.py*]
  - g. Sixth step: add the results to the plot [*mc6.py*]