CS480
Translators

Introduction to Compilers

Milestone I - *gforth*

OSU Oregon State University

Your First Milestone

- Learn a new language, *gforth*
- Get a Makefile working
- Write a Milestone report

Why learn a new language?

- Different language paradigms
- This is our target code

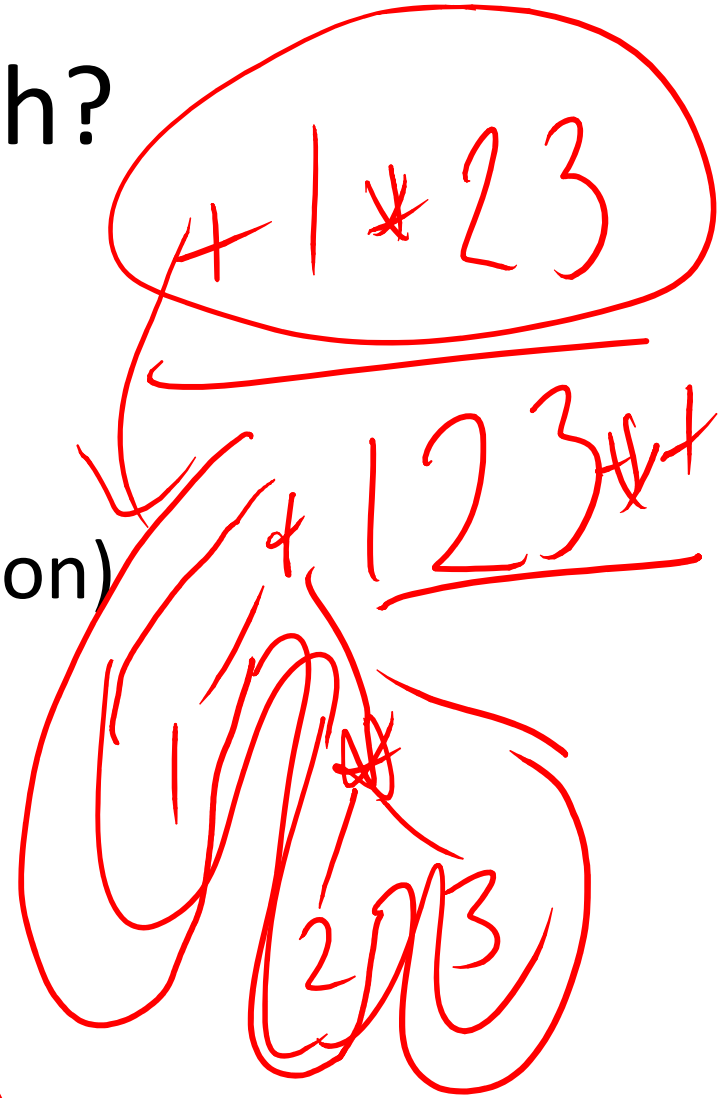
What is Forth?

- Imperative
- Stack-based
- Postfix (Reverse Polish Notation)

  1 + 2 * 3

  1 2 3 * +

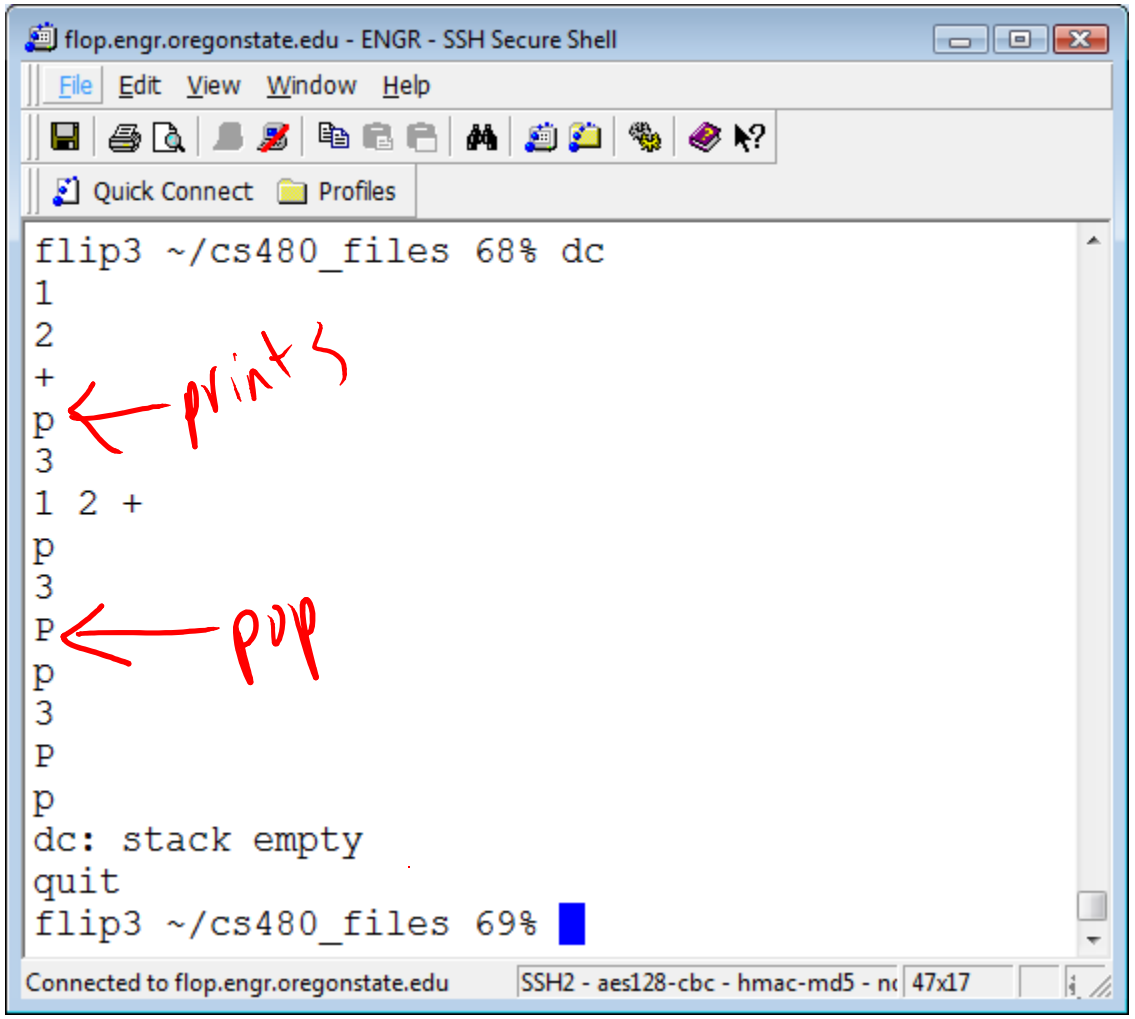
- How about 3 / 1 + 4 * 2?



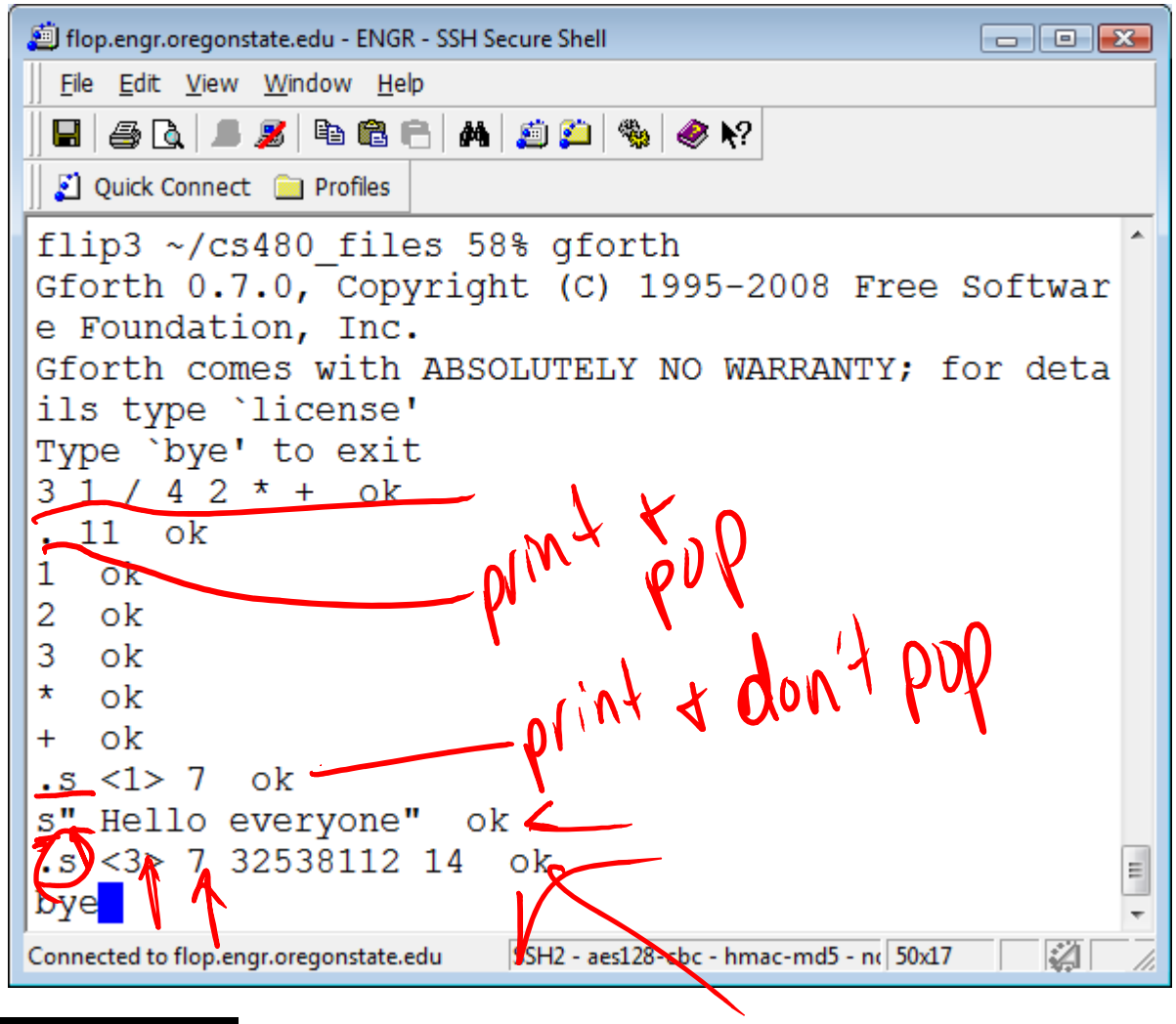
Gforth

- How does it work?
  - Command Line
  - Files

Old Desk Calculators



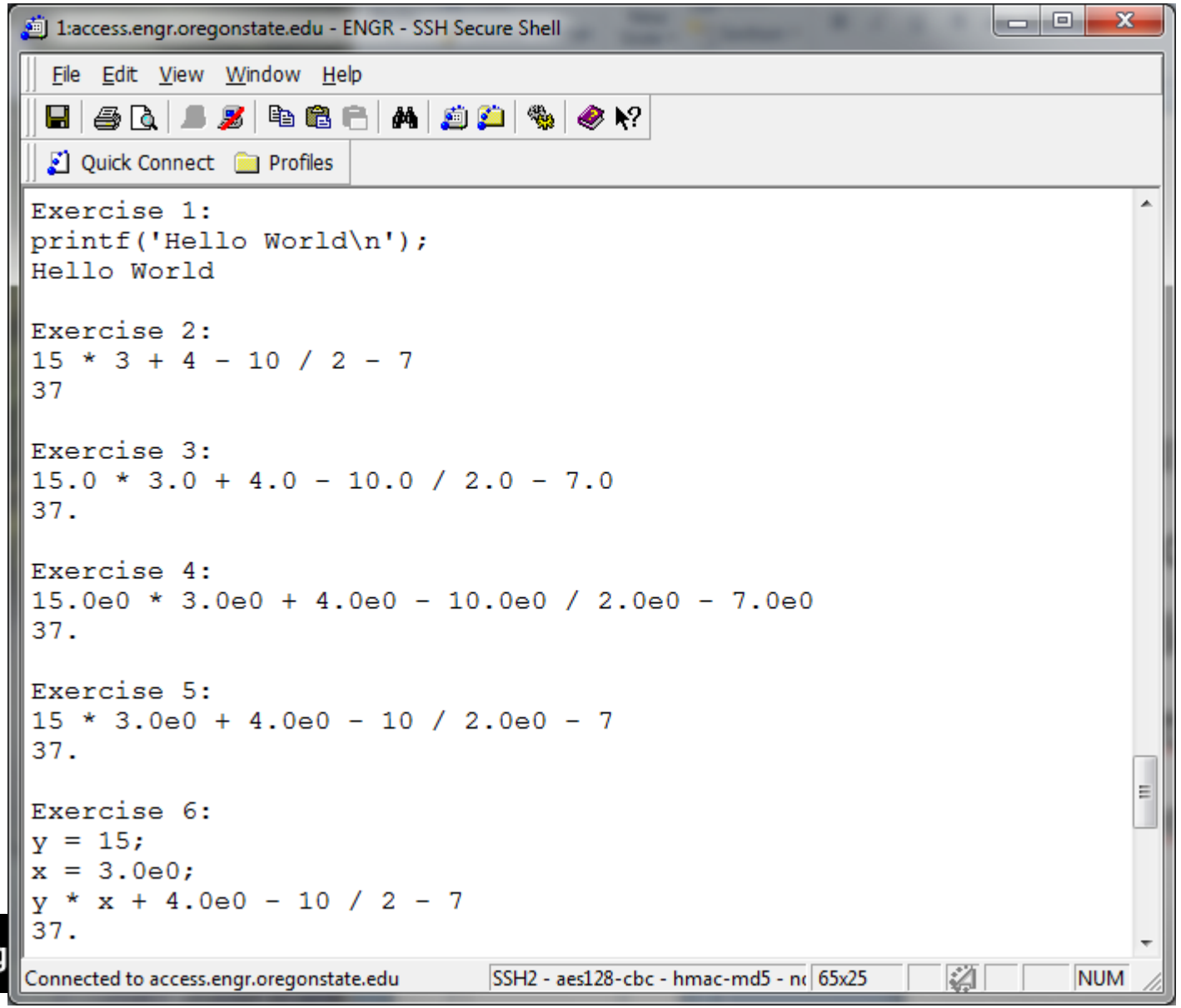
Starting/Using Gforth



Makefile Example

- Four Targets
  - compile
  - clean
  - stutest.out
  - proftest.out

Example stutest.out



Milestone Report

Handwritten Answers to Milestone Questions:

Specification (what do you think the purpose of this milestone is)

Processing (how did you and/or your team go about solving the problem)

Testing Requirement (how did you and/or your team test for correctness)

Retrospective (what did you learn in this milestone)

Team Evaluation (what is the percentage of time contributed by each team member)

Milestone Grading

- Compiles, cleans, and produces stutest.out
  - 50%
- Testing: completeness of coverage
  - 25%
- Milestone report (done individually)
  - 25%
- Remember to demo within 7 days of the due date!!!

Quiz #1 Questions

- Form groups of 3 - 4.
- Think about string representation.
- What are the different choices? (Examples)
- What representation does gforth use?
- What is the tradeoff between these choices?