

# Intro to C

1/20/25

# Administrivia

- HW 2 (multichoose function in assembly) due tomorrow night

# C philosophy

- The programmer knows what they are doing
  - the language should let them do whatever they ask and not try to detect stupid mistakes
- The language shouldn't unnecessarily get between the programmer and the hardware
  - let the programmer access the hardware so they can write fast code

# Our programming environment

- Linux – open source operating system (free version of Unix)
  - Powerful, but not always user-friendly
- Running on another machine (euclid) over the network
- Getting to Euclid
  - Mac OS: `ssh username@euclid`
  - Windows: putty (separate program) or ssh from Terminal/Powershell

# Emacs for beginners

- C means “control key”, M means “escape key”
- C-x C-s saves current file
  - Look for stars at bottom to see if it’s saved
- C-x C-c exits (will ask about saving)
- C-z suspends (hides window w/o exiting)
  - fg to return to emacs (DO NOT REOPEN)
- C-g to cancel; M-x undo to undo

# Settings to help you use emacs

If you're coming from Windows, it used to be helpful to add the following line to your .emacs file:

```
(normal-erase-is-backspace-mode 1)
```

Probably everyone should add

```
(global-set-key "\M-g" 'goto-line)
```

# Compiling and running C for beginners

- Compile:

`gcc -Wall -std=gnu99 -o name name.c`

Turn on all warnings

Set C version

Set name of output file

Name of code file

- Run:

`./name`

# Are you here today?

- A. Absolutely!
- B. Yes
- C. Isn't this the best choice for today?
- D. Just enough to vote
- E. Where am I again?