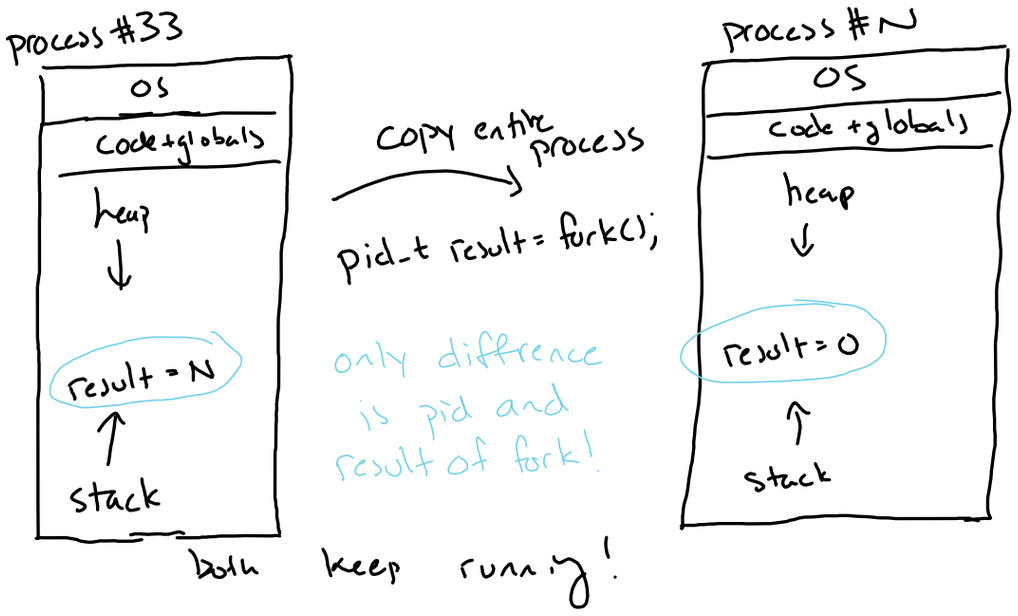
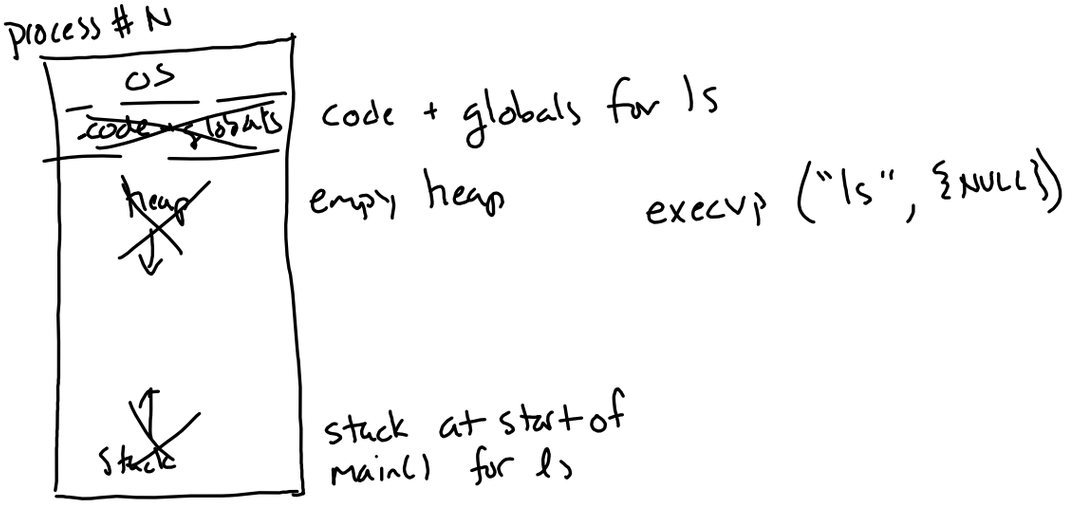


pid_t fork()

Create a new process that is a copy of the current process.

In the new process, return 0.

In the original "parent" process, return the pid of the child.



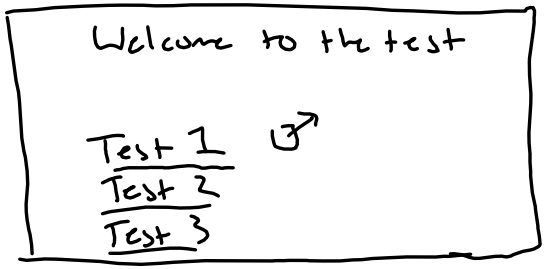
execvp(cmd, args)

Replace current process with the state of a freshly-started program cmd with args

(args is a NULL-terminated array of char*)

Reminders

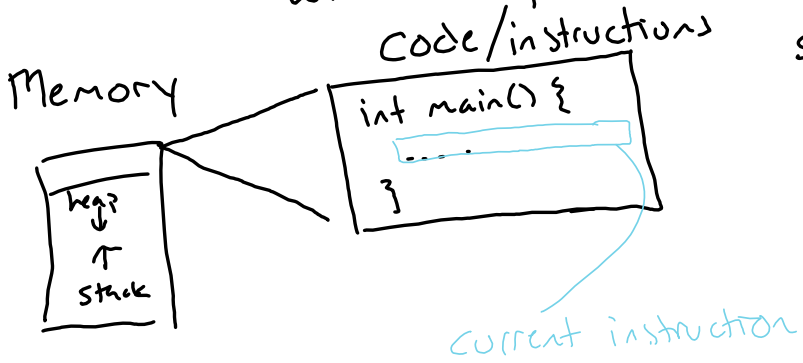
- Make-up exams next week
  - You sign up for 1-2 slots



- Review quiz this week
- PA4 due tonight (rough goal → grade by Tue, resubmit Mon)
- PA5 no resubmit, no design Q

Processes - What is a process?

What are parts of a process?



system resources
- sockets
- stdin
- stdout

Not part of process:
gcc before our program starts

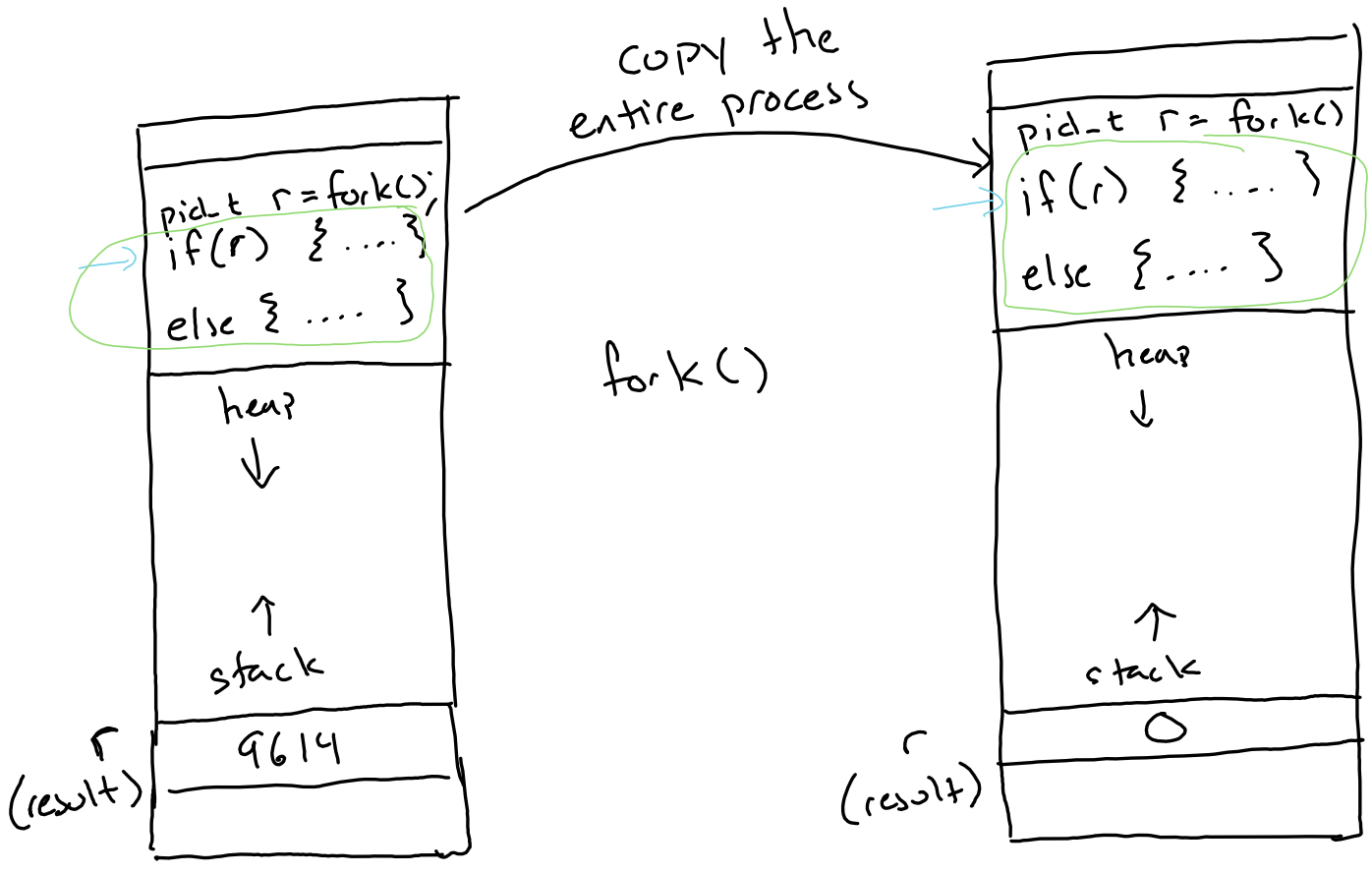
A process is the memory, (current) instructions, and system resources for a running program.

How do we create and manage processes from a program?

pid_t fork() (creating)

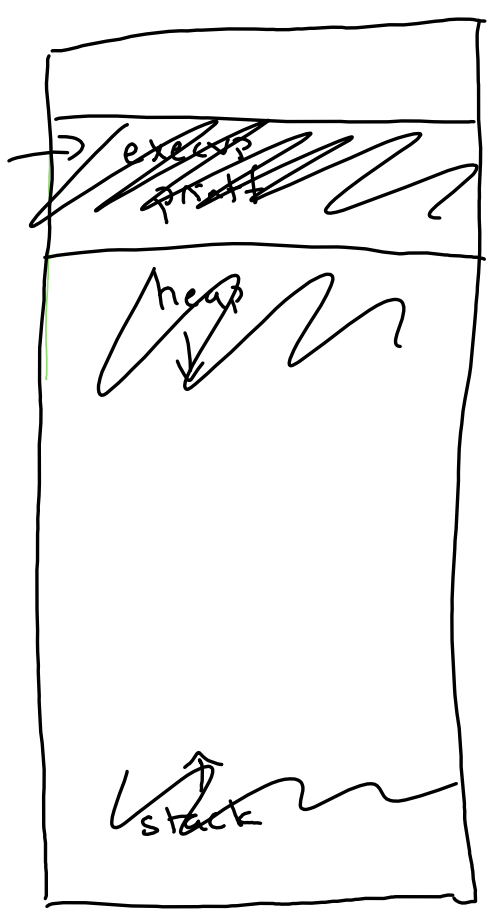
void execvp(cmd, args) (manage/start/control)

What are apps that create + manage processes?
- text editor (proc per file?)
- Youtube? (process for A/V vs. web page) Live Video
- Can we isolate/limit a process (antivirus?)
- bash/terminal (these are C programs!)
- Gradescope autograder / PrairieLearn



fork returns the pid of the copy (eg 9614)

fork returns 0



execvp("ls", args)