

# 10-27-15 Pre-class Work

\* Required

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Please indicate which course you are taking. \*

- CS61 (College)
- CSCIE-61 (Extension)

## Midterm Debrief

The midterm was: \*

The midterm was: \*

The midterm was: \*

## Pipes, pipes, and more pipes

Pipe hygiene refers to: \*

- How frequently you clean your plumbing
- When you create pipes
- Properly closing file descriptors
- I have no clue

When a parent process creates a pipe that it expects to be shared among two child processes, how many closes should there be? \*

- 1
- 3
- 4
- 6
- Option 5

parent + each child have  
2 ends open  $\Rightarrow$  6 opens.



want 2  
open:  
 $6 - 2 = 4$

**If a parent wants to communicate via a pipe with its child, how many closes will there be? \***

- 1
- 2
- 3
- 4

**If a pipe gets copied among N processes (via fork) and we want to use it to communicate between just 2 processes, how many closes must there be? \***

- $2*(N-1)$
- $2N - 2$
- Well, each process has 2 ends of the pipe and we want only 2 open fds at the end, so all but 2
- All of the above

**A zombie is: \***

- A process with no children.
- A child process whose parent has died.
- A child process that has exited, but whose status has not been waited upon.
- A process with no open file descriptors.

**If a parent sets up a pipe between two children and forgets to close its pipe file descriptors, which of the following could happen? \***

Check all that apply.

- All processes will run and exit cleanly
- The child reading from the pipe will exit cleanly, but the writers will hang.
- The process writing to the pipe will exit cleanly, but the reader will hang.
- The parent will be unable to exit.
- The execvp call will fail.

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