- 1. Components of Makefile:
 - a. Comments
 - b. Macros
 - c. Explicit rules
 - d. Default rules
- 2. Two reasons to use Syscall over c standard library functions
 - a. System calls are very powerful and can exert great influence on the system. For instance, some system calls enable you to shut down the linux system, or to allocate system resources and prevent other users from accessing them. These calls have restriction that only process running with superuser privilege can invoke them. They fail when invoked by non superuser process.
- 3. Why do we call OS a software independent layer, if that's the case how does the OS communicate and know about your device hardware. (ex. What brand/type of printer you have).

a.

4. Describe with words or labeled diagram how a user program that asks for the low and high values of pi communicates with /dev and pi driver.

a.

- 5. How does the OS fake pseudoparallelisim when it runs seemingly at once
- 6. What are two reasons system calls are implementing interrupt instructions as opposed to jump instructions
 - a. Interrupt- pauses code so syscall can run
- 7. What is the context of context switch and why is it important to save it when switching
 - a. when CPU switches from one process to another, To resume the suspended process, the stat of the machine called a process's context, which includes the register, open files, and stack. It must be saved. To run the new process, its context must be restored.
- 8. What is the | is for, it has to do with how it's a binary representation
- Fork(), order of what would be printed, and how to force order using wait() int status;

Wait(&status);

- 10. Why is it bad to just catch and ignore signal and try to carry on with your program
 - a. It is bad to continue, because machine might be in corrupt state
- 11. What you can't do in kernel, and what you can do
 - a. Cant
 - i. Stack allocate big arrays.
 - ii. Floating point arithmetic.
 - b. Can

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- 12. What is block device.
 - a. A device that stores data in fixed sized blocks, even uniquely addressed & can be randomly accessed. Eg: disks, flash drives