1. What is the proper order of system initialization stages on most x86-based systems?

1 / 1 point

- ⦿ **BIOS -> GRUB -> init (PID 1)**

- ◯ **GRUB -> BIOS -> init (PID 1)**

- ◯ **init (PID 1) -> BIOS -> GRUB**

> ✓ **Correct**
> The system starts with BIOS, then moves to GRUB, and then starts first user process, init.

2. Which files need to be in the **/boot** directory for the system to boot up (select all that apply)?

0 / 1 point

- ☑ **System.map**

> ⊗ **This should not be selected**
> This file contains important debugging information, but is not needed to boot.

- ☑ **config**

> ⊗ **This should not be selected**
> This file contains the kernel configuration and is there for reference and is not needed to boot.

- ☑ **initramfs**

> ✓ **Correct**
> This is the initial ram filesystem, which contains essential drivers for hardware and filesystems.

- ☐ **vmlinuz**

3. Using GRUB lets you (Select all correct answers):

1 / 1 point

- ☑ Choose various options for booting up the system

> ✓ **Correct**
> One can change many parameters that the system starts with

☑ Choose which Linux kernel to user for boot

> ✓ **Correct**
> One can either have different options in the menu, or add one at run time

☑ Choose between operating systems or different Linux distributions

> ✓ **Correct**
> One can have a multiple boot system, with multiple versions of Linux, Microsoft Windows, etc

4. Select the order in which the following system initialization methods were introduced:

1 / 1 point

○ systemd -> SysVinit -> Upstart

◉ SysVinit -> Upstart -> systemd

○ SysVinit -> systemd -> Upstart

> ✓ **Correct**
> SysVinit goes back many years and systemd is the most recent

5. Which runlevel is multiple user with no graphical desktop?

1 / 1 point

◉ 3

○ 1

○ 5

> ✓ **Correct**
> Runlevel 3 is multiple user with network, but only text login