https://kahoot.it/<https://os.cybbh.io/public/os/latest/007_linux_boot_process/linboot_fg.html>

BIOS / EUFI are referred to as “firmware”- it ensures hard drive, display drives, ram functions, locates MBR / GPT (GUID partition table).

bombadil@minas-tirithL

xxd -l 512 -g 1. ./mbroken

man xxd

man dd (makes a copy)

dd if=./mbroken bs=512 count=1 | md5sum

xxd -s 446 -l 64 -g 1 ./mbroken

-s seek 446 the bootstrap

dd if=./mbroken bs=1 count=64

dd if=./mbroken bs=1 skip=446 count=64

**dd if=./mbroken bs=1 skip=446 count=64 | md5sum**

cat /boot/grub/grub.cfg

monolithic kernel- everything occurs through syscall

ltrace -S cat /etc/passwd

ltrace -S lsmod

Linux Boot MBR 5

10

The file /home/bombadil/mbroken is a copy of an MBR from another machine.

**xxd -s 392 -l 5 -g 1 ./mbroken**

**dd if=/home/bombadil/mbroken bs=1 skip=392 count=4 | md5sum**

Linux Boot MBR 3

10

The file /home/bombadil/mbroken is a copy of an MBR from another machine.

Hash only the Bootstrap section of the MBR using md5sum. The flag is the entire hash.

**dd if=/home/bombadil/mbroken bs=1 count=446 | md5sum**

Linux Boot SysV 2

10

Identity the default run level on the SysV Init Linux machine.

Flag format: #

**2**

Linux Boot MBR 2

10

Locate the master boot record for one of the Linux machines and read it with xxd

What programming language is the MBR written in?

HINT: Look at the first three bytes

**assembly language**

Linux Boot MBR 1

5

How large is the Master Boot Record and what directory is it located in?

Flag format: #InBytes,directory

**512,/dev**

Linux Boot MBR 4

10

The file /home/bombadil/mbroken is a copy of an MBR from another machine.

Hash the first partition of the file using md5sum. The flag is the hash.

**xxd ./mbroken**

**dd if=./mbroken bs=1 skip=446 count=16 | md5sum**

Linux Boot SysV 3

10

What is the last script to run when the command init 6 is executed?

Flag format: /absolute/path

NOTE: Use the machine identified in SysV 1 for this question.

cat /etc/inittab

cd /etc/init.d

ls

**/etc/init.d/reboot**