# Chapter 5 Lab Questions

During the RHCSA exam, tasks will be presented electronically. Therefore, this book presents most of the labs electronically as well. For more information, see the “Lab Questions” section toward the end of Chapter 5.

## Lab 1

This lab is focused on targets and the boot process. You’ll boot a system into the emergency target, with a full display of all boot messages. You’ll then set up the system to boot into the multi-user target by default.

1. Power up the server1.example.com system. During the boot process, when you see the following message (the operating system name and version number may vary), press a key:

The selected entry will be started automatically in 5 seconds....

1. Press **e** to edit the current menu entry.
2. Scroll down to locate the line starting with **linux**.
3. What do you need to change and add to that command line to boot into the emergency target?
4. Make the required changes and then proceed with booting into the emergency target.
5. Reboot the system into the graphical target. What’s the default target?
6. Change the /etc/systemd/system/default.target symbolic link so that the system boots normally into the multi-user target.
7. Reboot the system. How do you confirm that the changes worked?
8. Restore the original default target.

## Lab 2

In this lab you’ll change the root administrative password. But here’s a twist: assume that you don’t know the current value of that password. What do you do?

## Lab 3

In this lab, you’ll set the timeout of GRUB 2 to 10 seconds. Before getting started, it’s best to back up the file. For example, the following command backs up the file to the root user’s home directory (/root):

# cp /boot/grub2/grub.cfg ~

As a bonus task, change the configuration of GRUB 2 to enable verbose boot messages at boot. To prove the result, reboot the system.

## Lab 4

Log in to the server1.example.com VM and take the following steps:

1. Log in to the root account. Execute the following command:

mv /boot/grub2/grub.cfg /root/

Note that this will make the system unbootable.

1. Reboot the system.
2. When you see the grub> prompt, use the skills described in this chapter to identify the drive and partition with the /boot directory. Where applicable, take advantage of the command completion features at the grub> prompt. That’s especially useful to avoid typos when typing the file paths that follow the **linux** and **initrd** commands.

Remember that the top-level root directory is specified by the root directive with the kernel command line.

1. After entering the location of the initial RAM disk, run the **boot** command at the grub> prompt.
2. If your efforts are successful, the system will boot normally. In the “Lab Answers” section, you’ll see how to restore the backed-up GRUB 2 configuration file.
3. If your efforts are not successful, boot the system from the installation DVD and select Troubleshooting, as described in the main body of the chapter.

## Lab 5

Log in to the server1.example.com VM and take the following steps:

1. Set the current time zone to America/Chicago.
2. Reconfigure **chronyd** to synchronize the time from time.google.com.
3. Confirm that your changes are working.

## Lab 6

Log in to the tester1.example.com VM and take the following steps:

1. Ensure that journal log files are written persistently on disk.
2. Reboot the system and save the journal log messages from the boot before the last one to the file /root/journal-beforelast.log.

## Lab 7

Log in to the tester1.example.com VM and complete the following tasks:

1. Stop **kdump** and ensure that it does not start at boot.
2. Configure the **rhcd** service so that it starts at boot.
3. Reboot the system and verify your changes.