№1

1. Unix commands are entered through the command line interface (CLI) or terminal window.

2. The Unix commands that are shown depend on the specific system and configuration. However, common Unix commands include ls (list files and directories), cd (change directory), mkdir (create a new directory), touch (create a new file), cp (copy a file), mv (move a file), rm (remove a file), cat (display contents of a file), grep (search for a specific string in a file), and more.

3. The output of each command depends on the specific command and its options. For example, the ls command will display a list of files and directories in the current directory, while the cat command will display the contents of a specific file.

4. When the last command is entered, the system will perform the specified action and return any relevant output. If the command was successful, the terminal will return to the command prompt for the user to enter another command.

5. Other Unix commands include pwd (print working directory), chmod (change file permissions), chown (change file ownership), ssh (secure shell to connect to another system), top (display system resource usage), and more.

№2

1. Applications software are programs designed to perform specific tasks, such as word processing or photo editing, while operating systems are software that manages and controls the hardware and software resources of a computer system.

2. The supervisor program, also known as the kernel, is the most important operating system program because it is responsible for managing all the other programs and resources of the system, including memory, CPU, input/output devices, and file systems. Without the supervisor program, the operating system would not be able to function properly.

3. Resident programs are programs that remain in memory even when they are not actively running, while non-resident programs are loaded into memory only when they are needed and are removed from memory when they are not in use. Resident programs often provide background services, such as antivirus software or printer drivers, while non-resident programs are typically applications that are run by the user.

4. The main functions of an operating system include managing hardware resources, providing a user interface, managing files and directories, providing security and access control, and running applications and services. Additionally, the operating system may include other features such as networking support, virtualization, or backup and recovery tools.