1.

Write a shell script that takes ‘n’ file names as arguments and finds all regular files that are duplicates, and replaces the duplicates with hard links.

If your script finds two or more files that are duplicates, it should keep the file whose name is lexicographically first (for example, if the duplicates are named X, A, and B, it should keep A and replace X and B with hard links to A).

If your script finds a file that is not a regular file, it should silently ignore it; for example, it should silently ignore all symbolic links and directories. If your script has a problem reading a file, it should report the error and not treat it as a duplicate of any file.

2.

Write a shell script that receives any number of file names as arguments checks if every argument supplied is a file or a directory and reports accordingly. Whenever the argument is a file, the number of lines on it is also reported.

3.

Generate a report on file permission as shown below from current directory

Detail Permissions No of files

User W 3

Group R 3

Other X 1

4.

Accept several two digit integer numbers as command line arguments, subtract the individual digits of two digit integer numbers given. The script should display the number whose difference between the digits is smaller.

For example if input numbers are 42, 28 and 76, the difference between the digits is 2, 6 and 1 respectively. So the output should be 76.

5.

Write a script which expects three parameters, a file name, a number n and a character c. The script then performs a circular shift of each input line (input is in the file specified in the first parameter). The lines are considered to be split into fields separated with character c and the number of elements to shift is given in number n. For example if the script is called like

script /etc/passwd 2

then each line of /etc/passwd is transformed from the initial format

login:\*:uid:gid:full name:home dir:shell

to the following form:

uid:gid:full name:home dir:shell:login:\*