

## Quiz: POSIX Shell I (Practice Problems)

### 1 Pipes

**Problem 1.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ echo 'hello world' >> README
3 $ echo 'hola mundo' >> README
4 $ echo 'salve munde' >> README
5 $ cat README | grep 'hello'
```

**Problem 2.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ echo 'hello world' >> README
3 $ echo 'hola mundo' >> README
4 $ echo 'salve munde' >> README
5 $ cat README | grep 'h'
```

**Problem 3.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ echo 'hello world' >> README
3 $ echo 'hola mundo' >> README
4 $ echo 'salve munde' >> README
5 $ cat README | grep 'h' | wc -l
```

**Problem 4.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ echo 'hello world' >> README
3 $ echo 'hola mundo' >> README
4 $ echo 'salve munde' >> README
5 $ cat README | grep 'h.*a'
```

**Problem 5.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ touch hello_world
3 $ touch hola_mundo
4 $ touch salve_munde
5 $ ls | wc -l
```

**Problem 6.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ touch hello_world
3 $ touch hola_mundo
4 $ touch salve_munde
5 $ ls | grep 'h.*a' | wc -l
```

## 2 Variables

**Problem 7.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var="hello world"
3 $ touch $var
4 $ ls | wc -l
```

**Problem 8.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var="hello world"
3 $ touch "$var"
4 $ ls
```

**Problem 9.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var="hello world"
3 $ touch '$var'
4 $ ls
```

**Problem 10.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var=`echo hello world`
3 $ touch "$var"
4 $ ls | wc -l
```

**Problem 11.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var=$(echo hello world)
3 $ touch "$var"
4 $ ls | wc -l
```

**Problem 12.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var=$(echo echo echo)
3 $ touch "$var"
4 $ ls | wc -l
```

**Problem 13.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var="$(echo echo echo) "
3 $ touch "$var"
4 $ ls
```

**Problem 14.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var='$(echo echo echo) '
3 $ touch "$var"
4 $ ls
```

**Problem 15.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var=$(echo $(echo echo))
3 $ touch "$var"
4 $ ls | wc -l
```

**Problem 16.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var=$(echo '$(echo echo)')
3 $ touch "$var"
4 $ ls
```

**Problem 17.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var=$(echo $(echo $(echo)))
3 $ touch "$var"
4 $ ls | wc -l
```

**Problem 18.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var=$(echo $(echo) echo)
3 $ touch "$var"
4 $ ls | wc -l
```

**Problem 19.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ var=echo echo echo
3 $ touch "$var"
4 $ ls | wc -l
```

### 3 For loops

**Problem 20.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in a b c d e f; do touch $file; done
3 $ ls | wc -l
```

**Problem 21.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in 'a b' 'c d' 'e f'; do touch $file; done
3 $ ls | wc -l
```

**Problem 22.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in 'a b' 'c d' 'e f'; do touch "$file"; done
3 $ ls | wc -l
```

**Problem 23.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in 'a b' 'c d' 'e f'; do touch '$file'; done
3 $ ls | wc -l
```

**Problem 24.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in a b c $(echo hello world) d e f; do touch "$file"; done
3 $ ls | wc -l
```

**Problem 25.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in 'a b' 'c' $(echo hello world) d' 'e f'; do touch "$file"; done
3 $ ls | wc -l
```

**Problem 26.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in "a b" "c" $(echo hello world) d" "e f"; do touch "$file"; done
3 $ ls | wc -l
```

**Problem 27.** Write the output of the final command in the following terminal session. If the command has no output, then leave the problem blank.

```
1 $ cd; rm -rf quiz; mkdir quiz; cd quiz
2 $ for file in "a b" "c" $(echo hello world) d" "e f"; do touch $file; done
3 $ ls | wc -l
```

**Note 1.** I will generate new problems by: (1) changing the type of quotation mark, (2) removing/adding quotation marks.